THE ARCHITECT & BUILDING NEWS

18 FEBRUARY 1959 VOL. 215 NO. 7 ONE SHILLING WEEKLY

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- **L.C.C. HOUSING, LEWISHAM**

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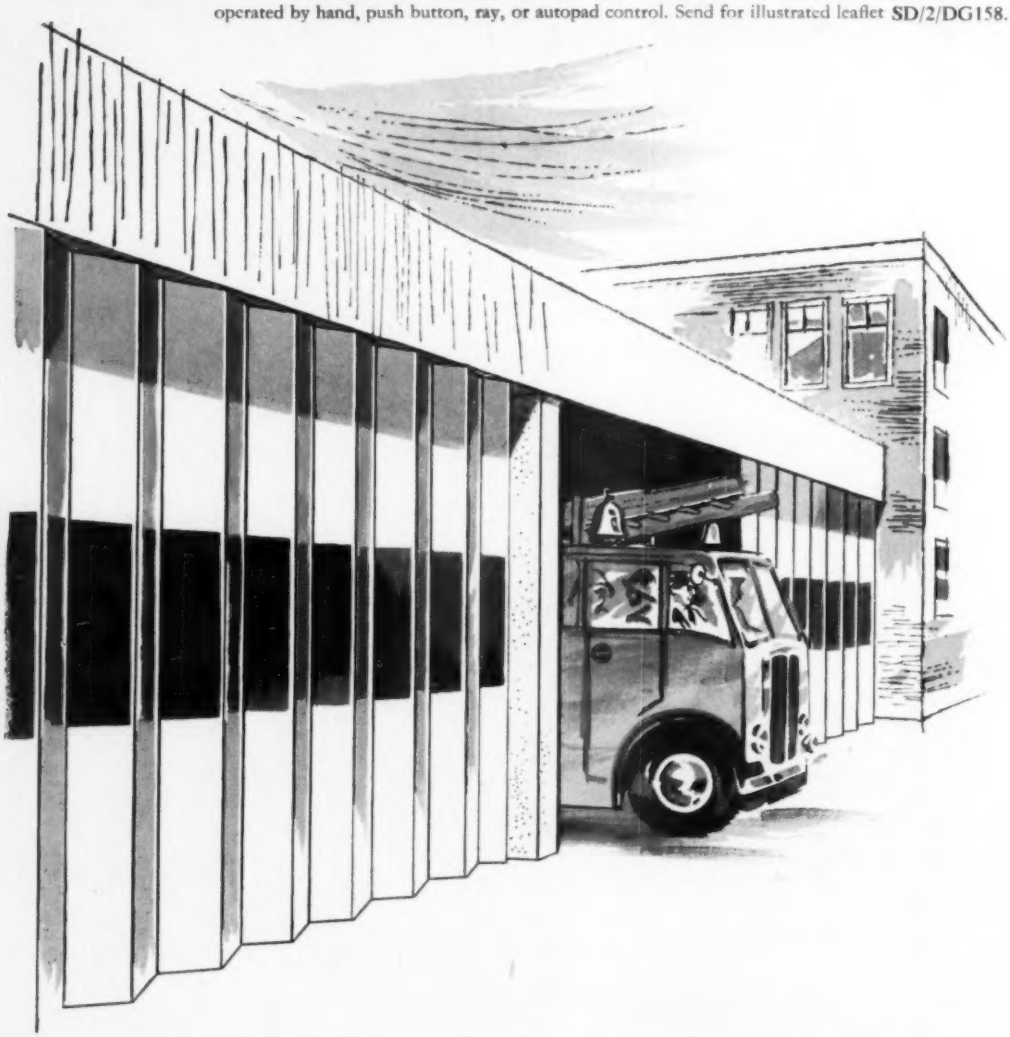

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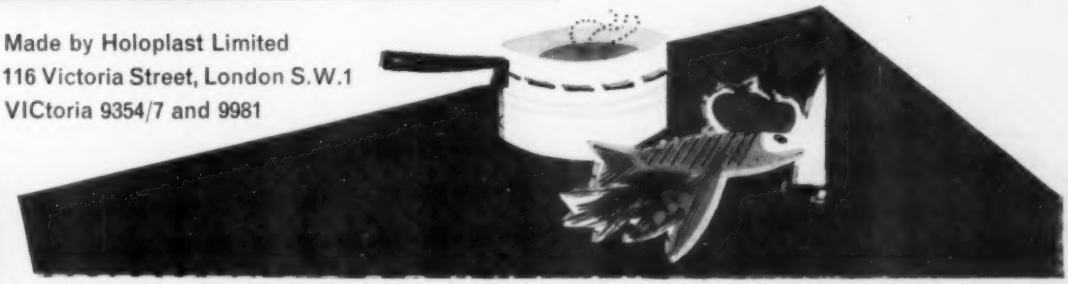

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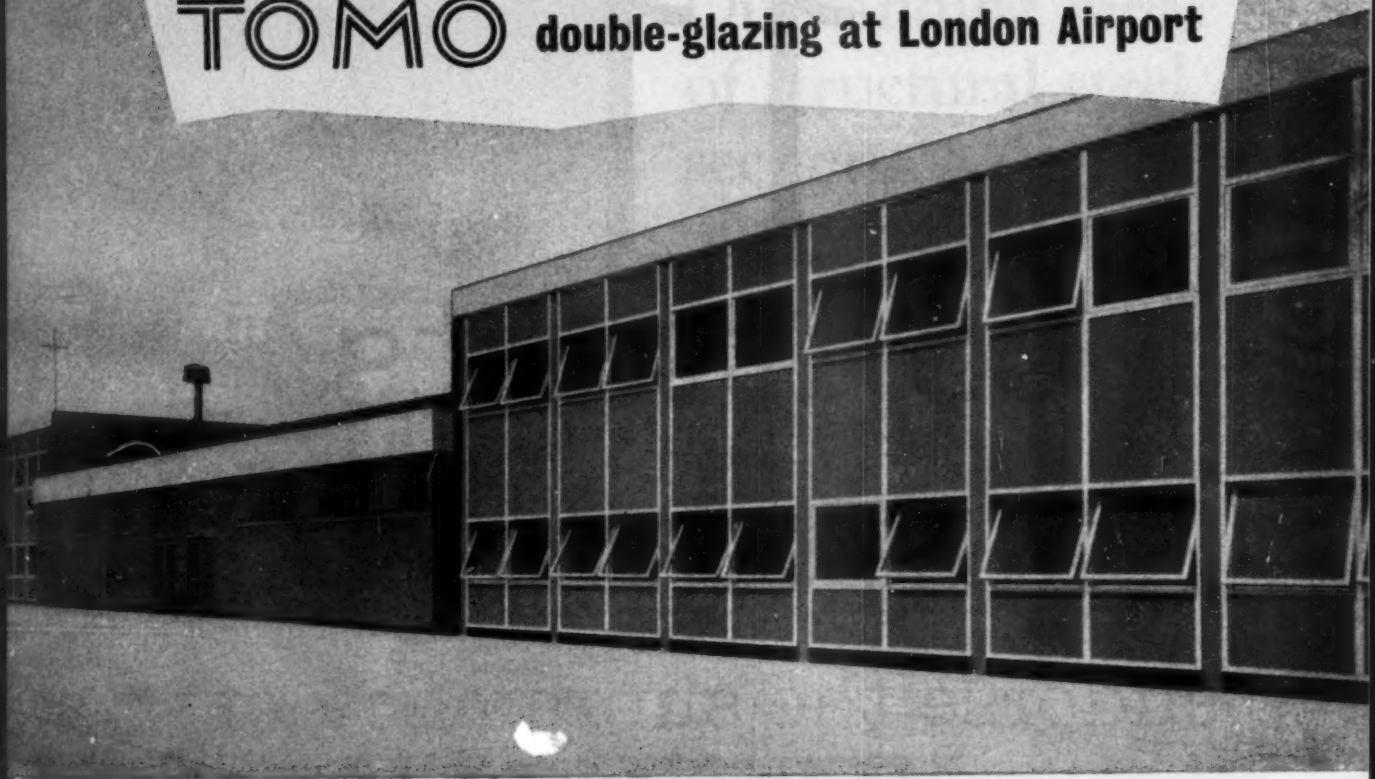
A*

TOMO double-glazing at London Airport



Administrative and operations offices for aviation fuel supplies at London Airport, half of which are occupied by Shell-Mex & B.P. Ltd. and the other by Esso Petroleum Co. Ltd. Architect: Frederick Gibberd, C.B.E., F.R.I.B.A., M.T.P.I.

We think you'll agree that the appearance of these attractive offices at London Airport is enhanced by their TOMO double-glazed WINDOWS. But that's only a small part of the story. TOMO double-glazing also offers excellent thermal-efficiency values, remarkable sound-reduction properties, finely-controlled ventilation and total indoor window-cleaning.

On the subject of thermal efficiency, we should like to refer you to the report of a recent B.R.S. test quoted on the right. It speaks volumes. When you work within whistling distance of aircraft, sound reduction becomes a matter of vital importance. Here TOMO WINDOWS score heavily. The total reduction in sound level depends finally, of course, on the thickness of glass employed and the space between panes. Using 32-ounce glass spaced at 1¼in, TOMO double-glazing gives a reduction of approximately 40 decibels and will, we hope, save Shell-Mex and Esso personnel not a few headaches in the future.

One last point, TOMO double-glazed WINDOWS are suitable for inward or outward opening and can be top-hung, bottom-hung, side-hung or pivot-hung. Any further information you may require will be gladly supplied.

BUILDING RESEARCH STATION TESTS

When a standard-production TOMO WINDOW Wall-Unit (8ft. × 8ft.) was tested at the Building Research Station, Garston, the mean thermal transmittance of the complete unit was found to be 0·31 B.Th.U./sq. ft./h/°F. This is equal to the thermal transmittance of a traditional 11-in. cavity brick wall! This impressive result was further improved to 0·29 when the TOMO pleated blinds, fitted between the panes, were lowered. The U-value of the window-area only was found to be 0·38 which, with TOMO pleated blinds down, became 0·35. At 0·38, TOMO double-glazed WINDOWS are substantially (29%) better than the U-value of 0·47 quoted for conventional double windows in the I.H.V.E. Guide to Current Practice, 1955.

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Address .....

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For the attention of ..... ABN. 2

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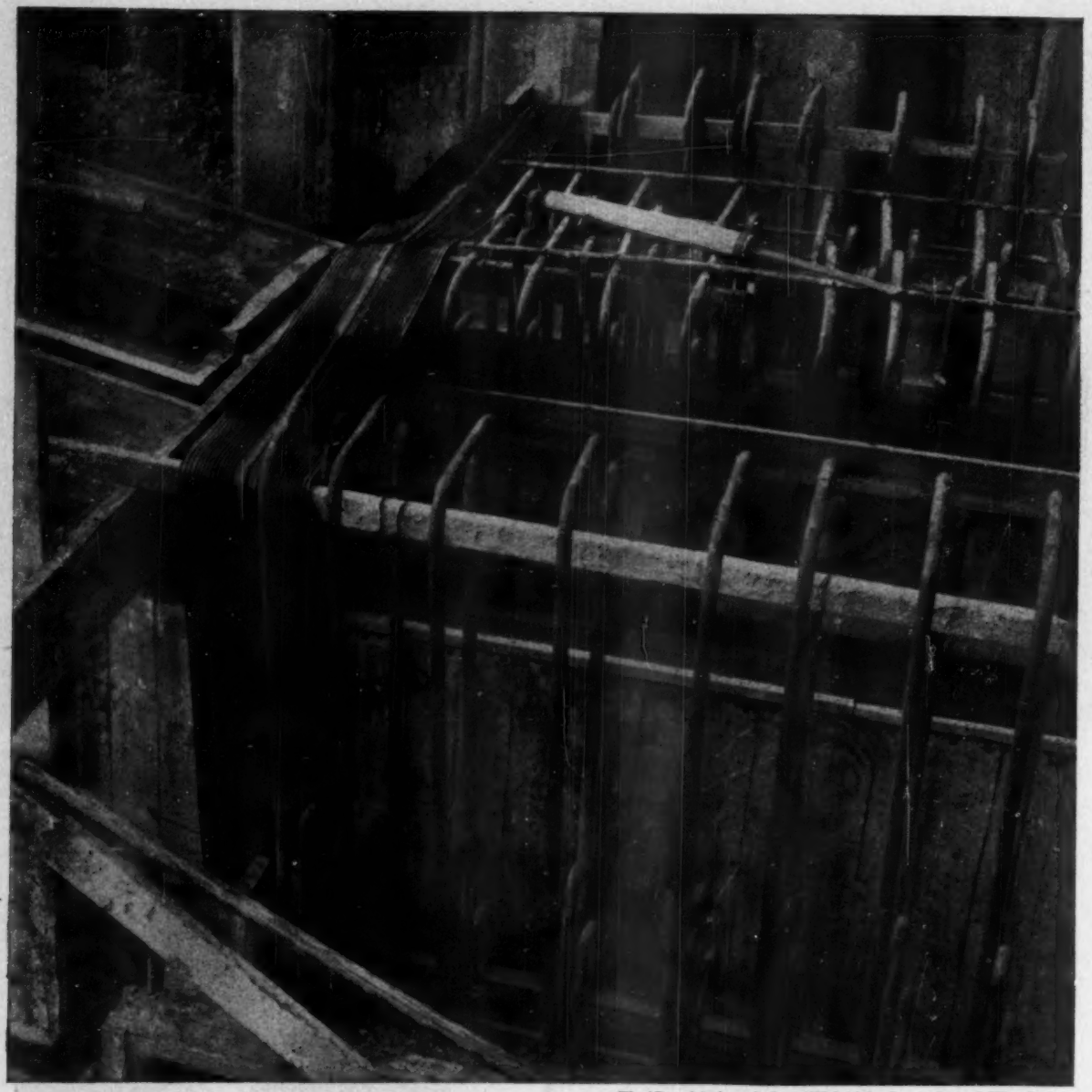

The 'Durajoint' made from 'Welvic' by Duratube and Wire Ltd. in position just prior to pouring last lift of the first section of a culvert.

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'WELVIC' is backed by the finest research and technical service in the country. That service is available to all users and potential users of 'Welvic'. If you want advice on the uses of p.v.c. have a word with I.C.I.

'Welvic' extrusions manufactured by Duratube and Wire Ltd. are used for sealing expansion and contraction joints in concrete structures, plain and reinforced. The making of 'Durajoints', as they are called, is but one of the very many applications of 'Welvic'.

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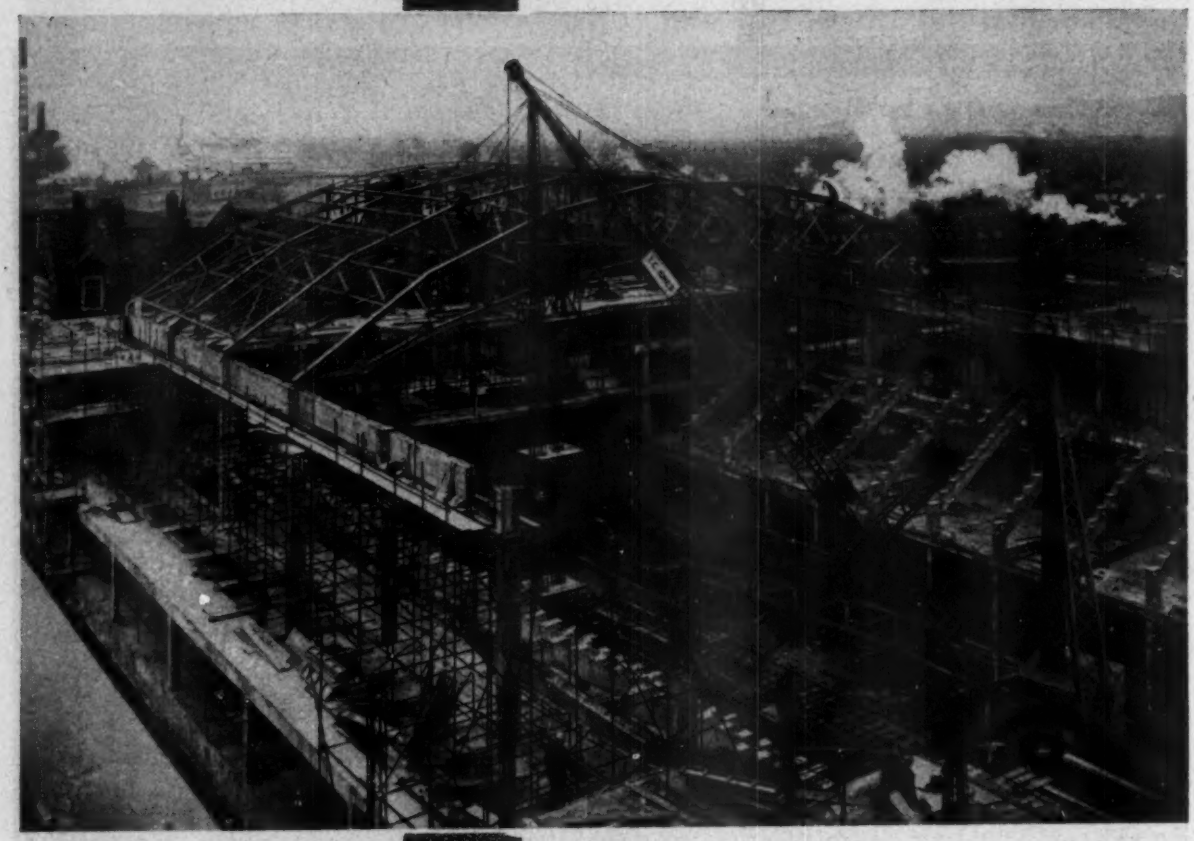
For the 1958 Empire Games Pool at Cardiff

A general view of the structure showing some of the 140 ft. roof trusses.



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2 Span Overbridge—constructed in 17 days. Photographs by kind permission of John Laing and Son Limited.

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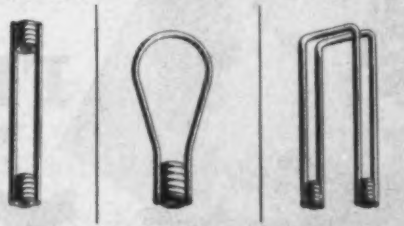

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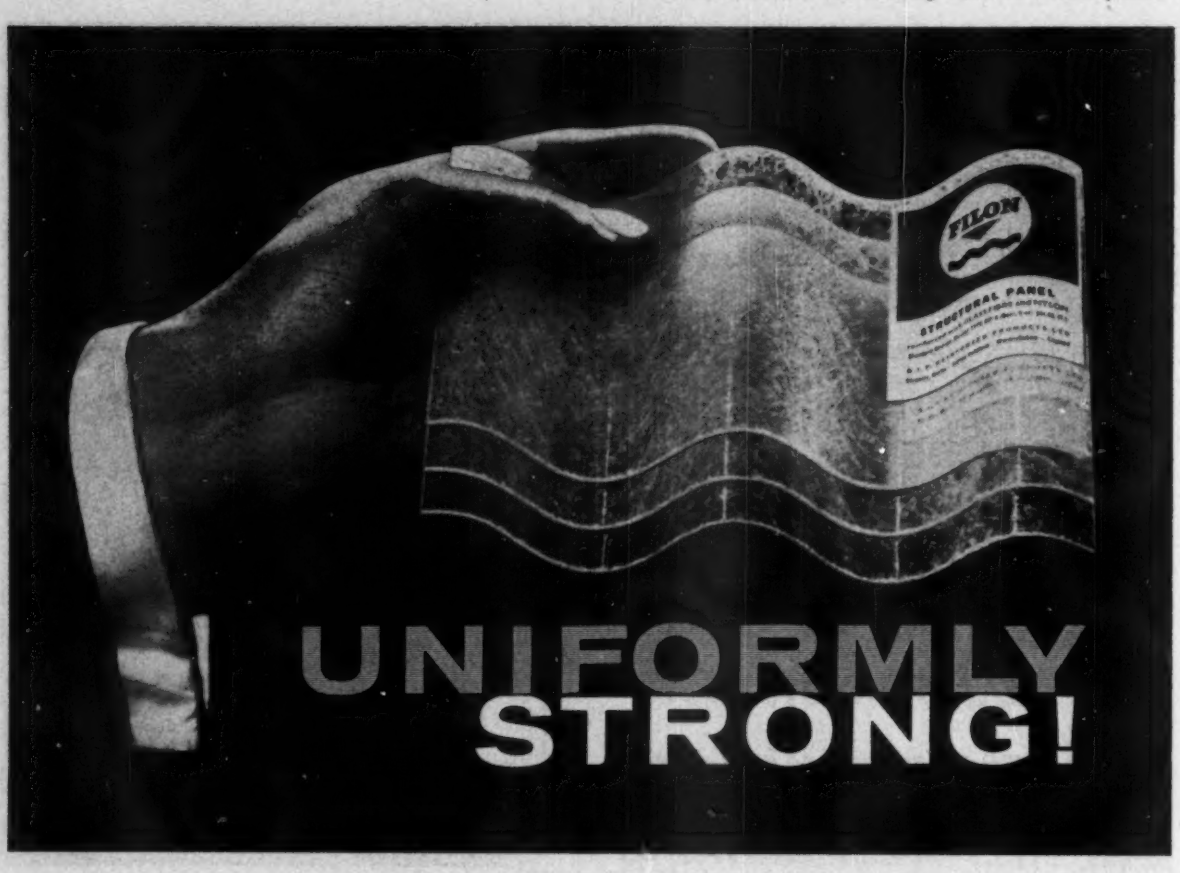

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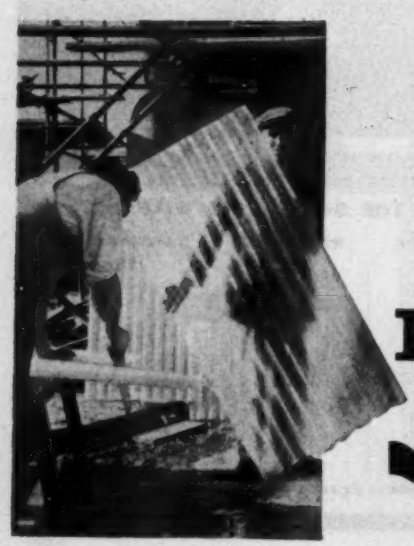

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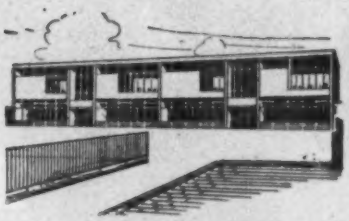

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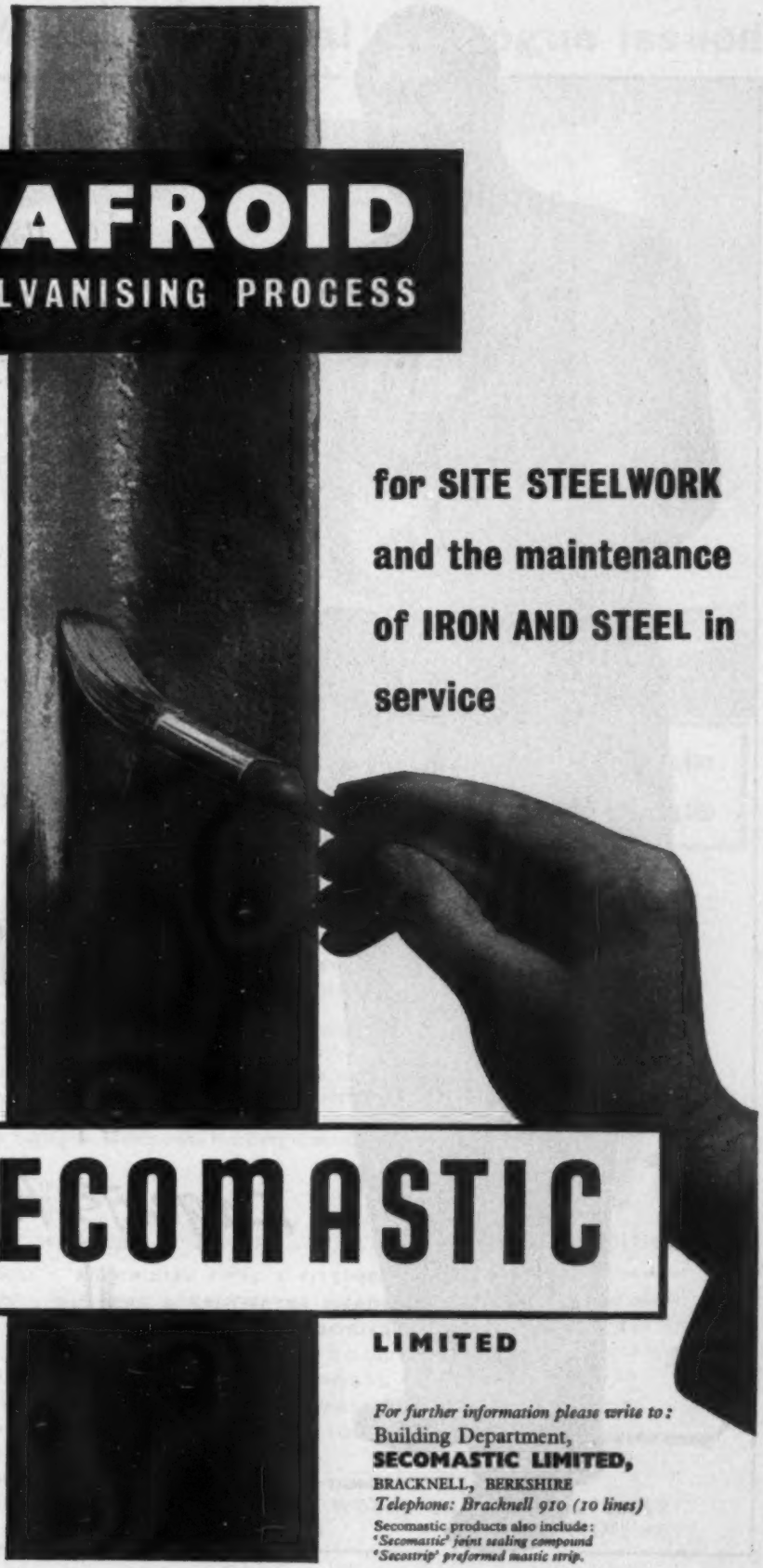

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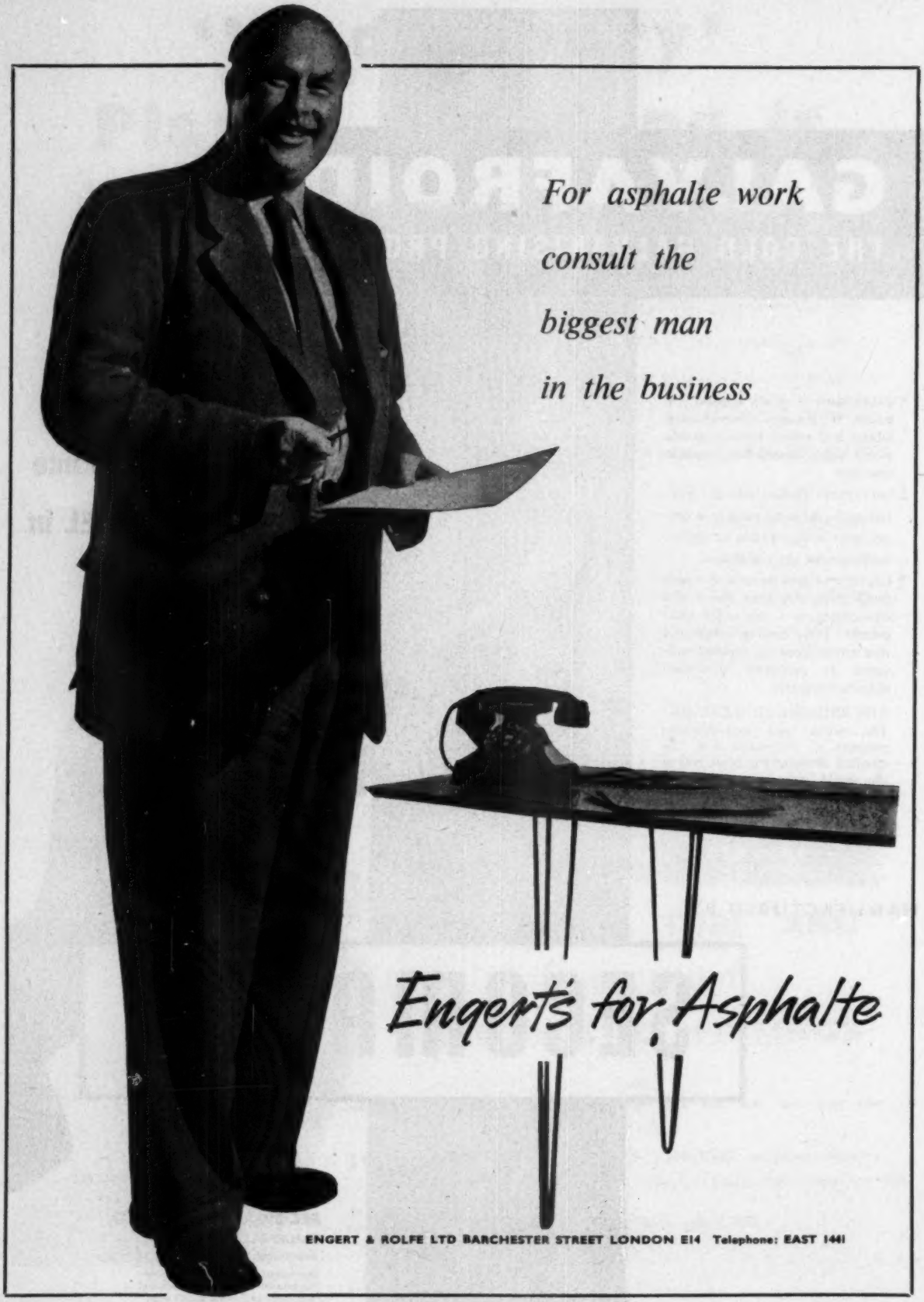
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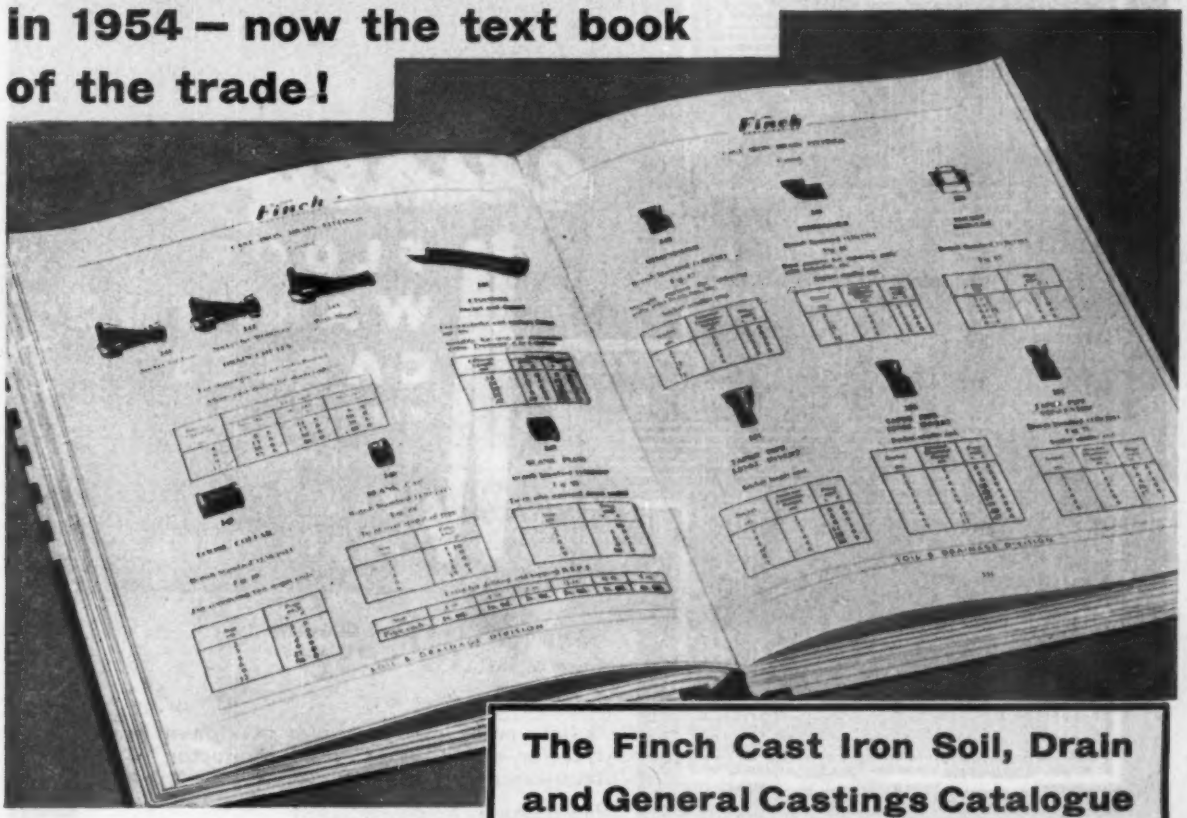

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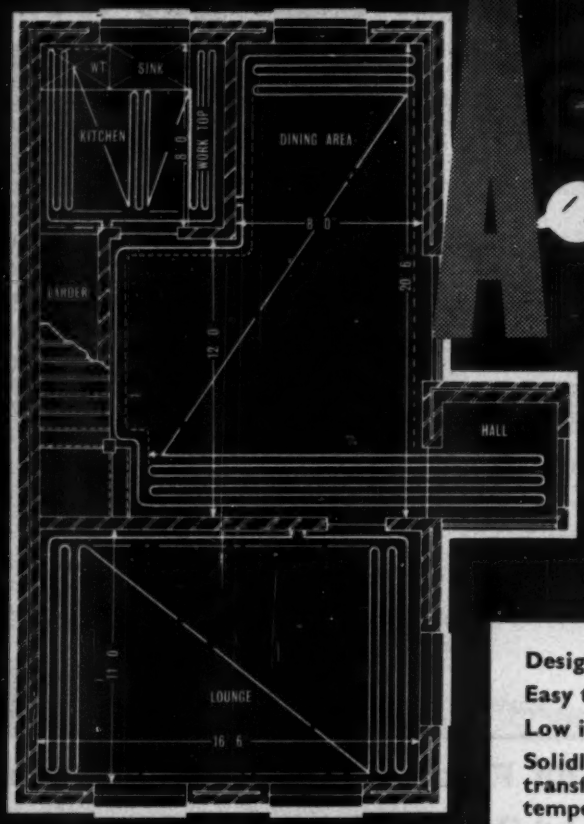

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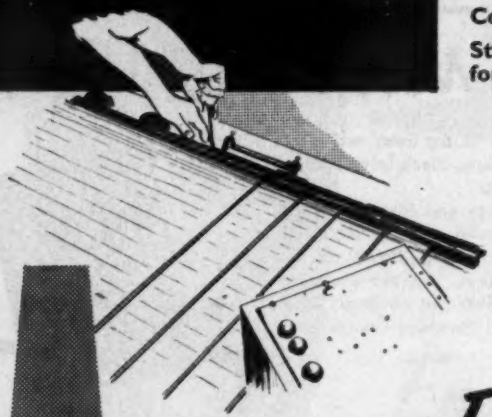

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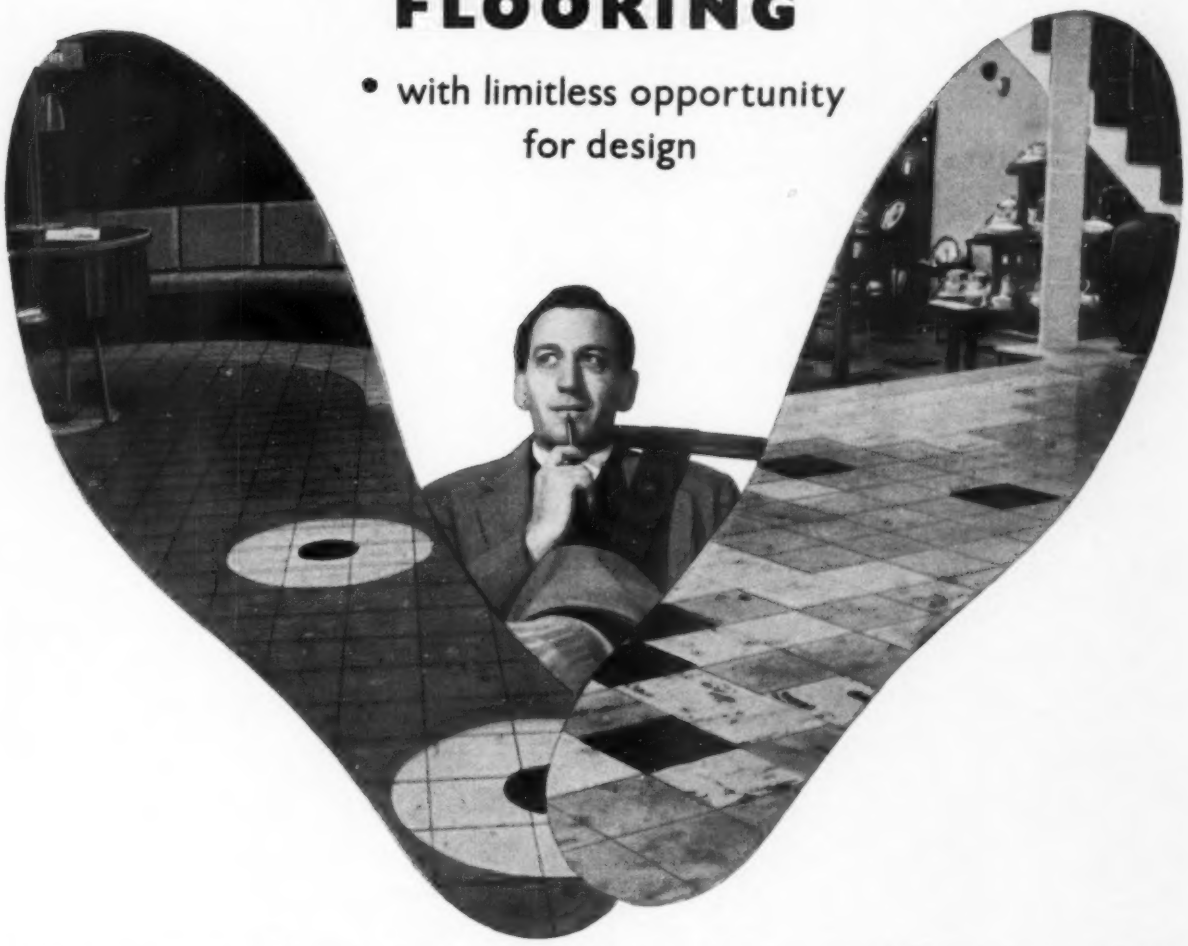

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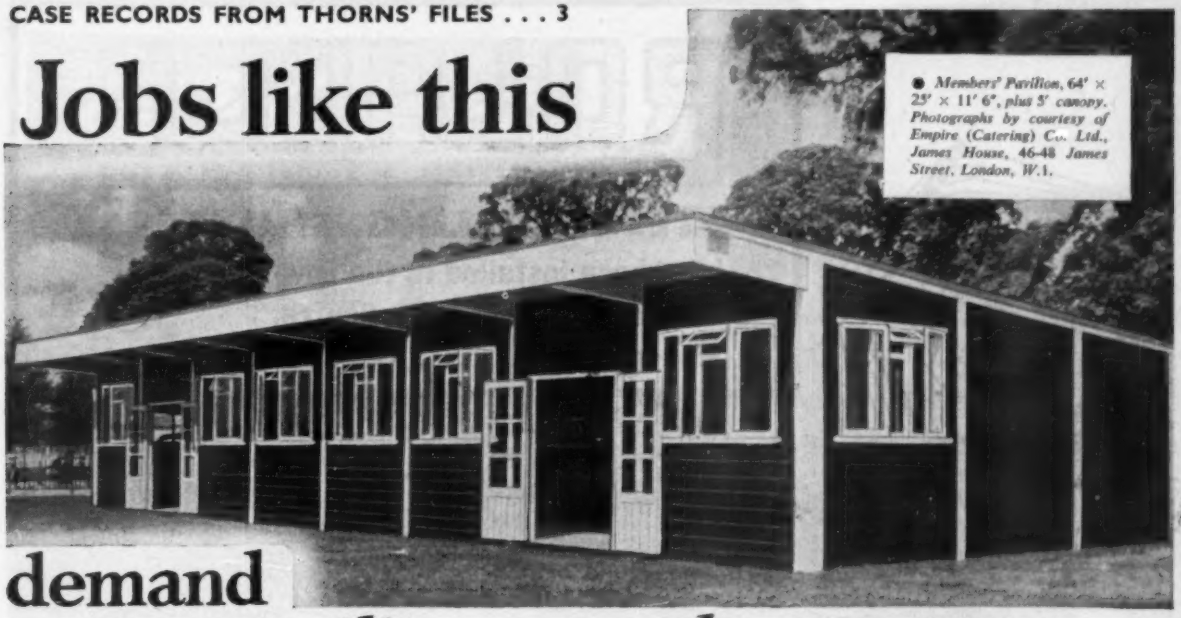

● *Members' Pavilion, 64' × 25' × 11' 6", plus 5' canopy. Photographs by courtesy of Empire (Catering) Co. Ltd., James House, 46-48 James Street, London, W.1.*

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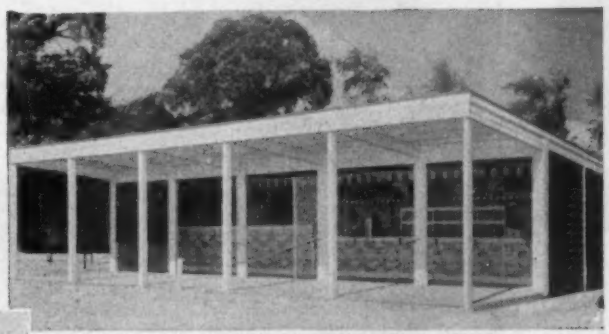

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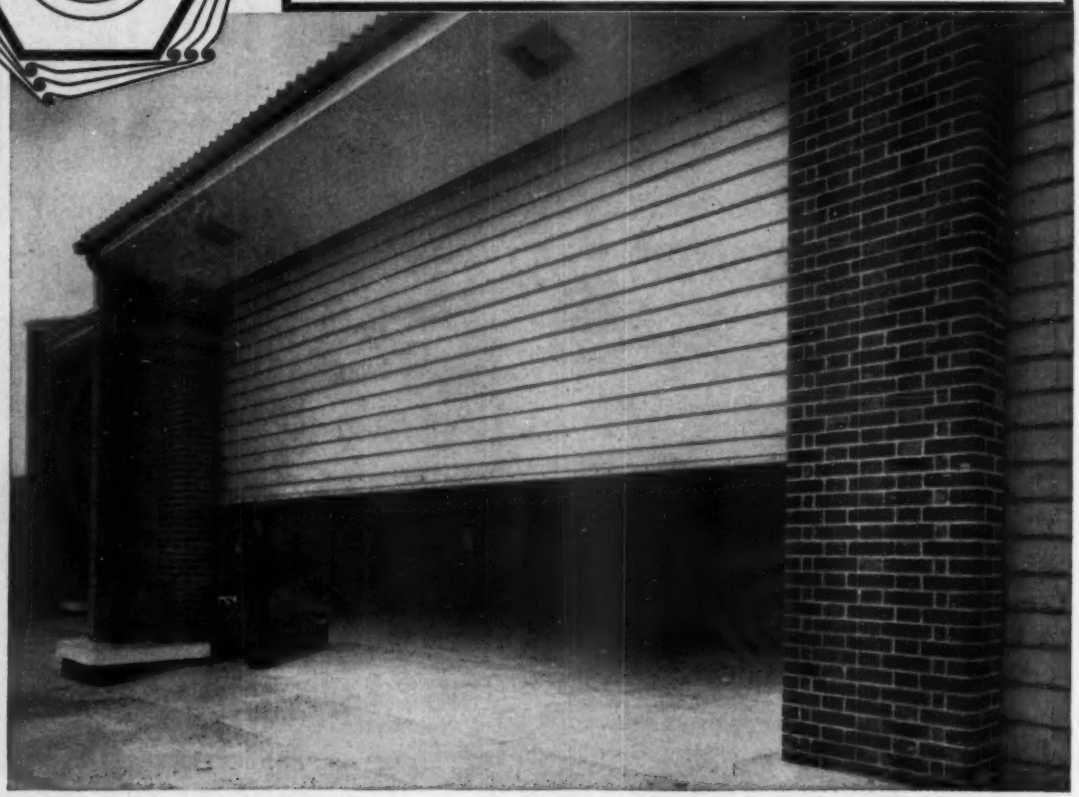

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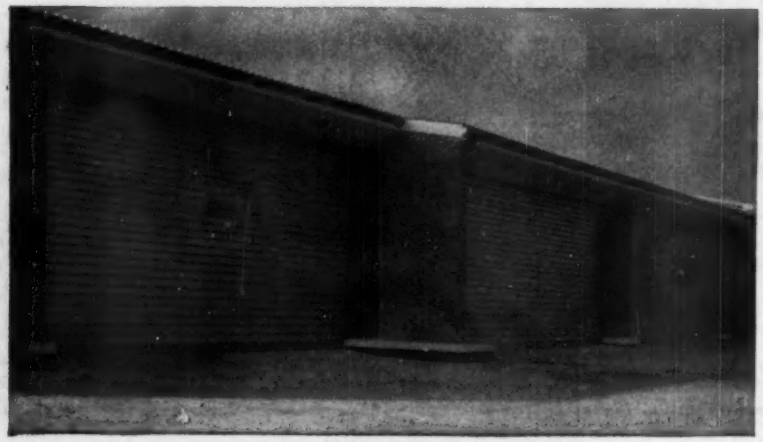

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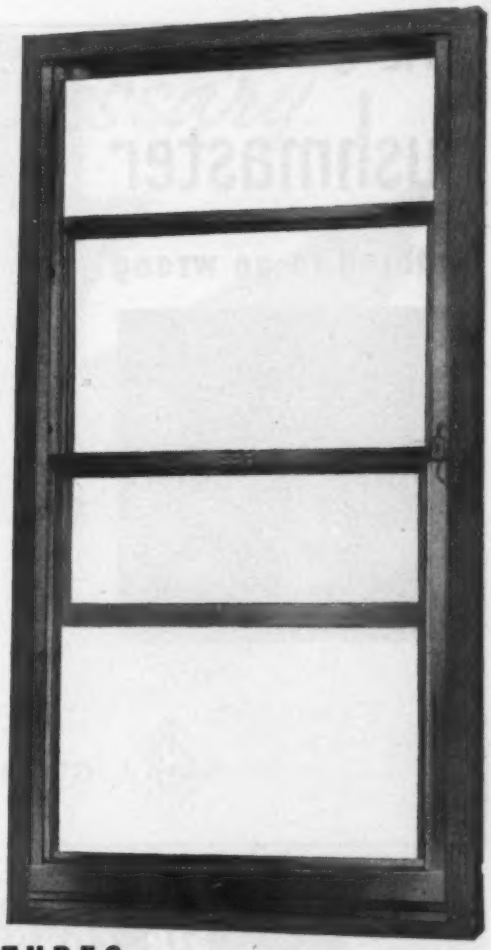

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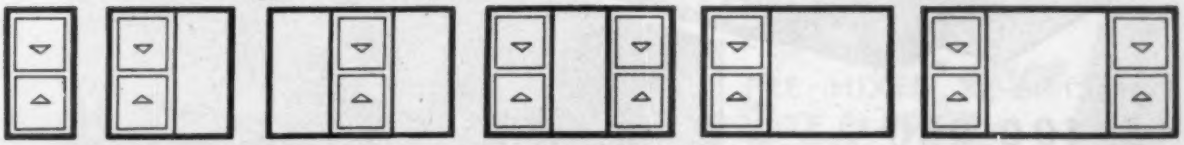

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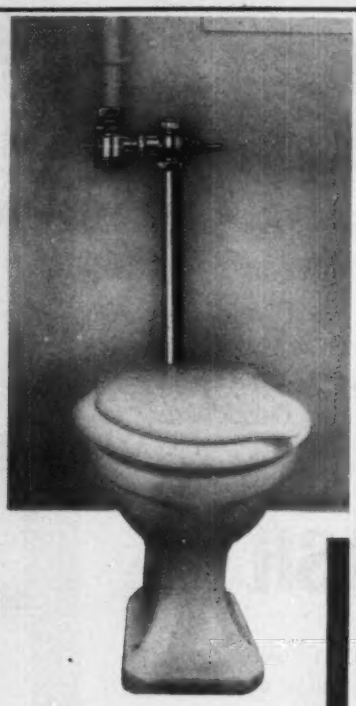

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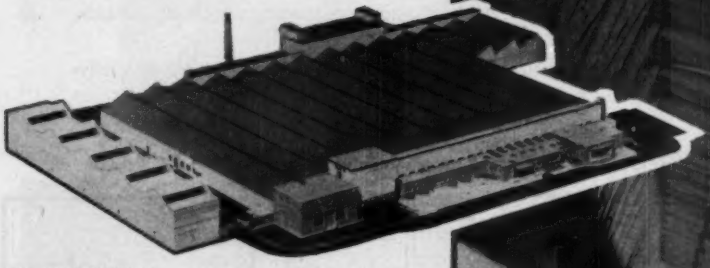

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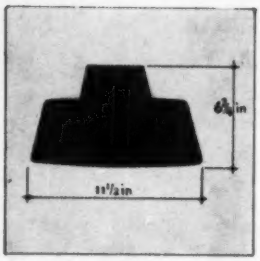

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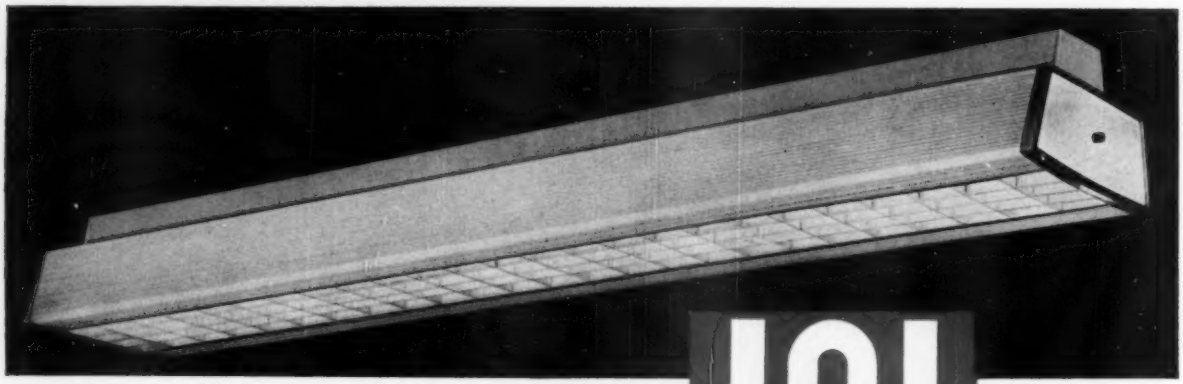

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Vol. 215 No. 7

THE ARCHITECT & BUILDING NEWS

18 February 1959

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SPRING MEETING

THE building unions' decision to hold a conference in April, to discuss new techniques in the industry and their impact on union organization, is a wise and timely move. A move, which the national president of the building trades employers, Mr. T. V. Prosser, at Liverpool recently, described as being important, both to the industry and to the whole community.

Mr. Prosser said: "New construction techniques and new mechanical methods are being introduced to the building trade every day, and although we have not been troubled by demarcation difficulties so much as other industries, it would be foolish for us to ignore the problems that are looming on the horizon."

The problems arise mainly from what is basically a craft industry needing to absorb more and more the techniques and methods of mechanical industry. Methods and periods of training are part of the business of reorganizing, to meet new demands, the trade and craft groups which have grown up over the years.

To start at the beginning: the whole question of apprenticeship needs to be looked at again. Does it require five years to become a bricklayer or painter today? Once upon a time when there were rubbed brick arches and similarly skilled tasks to be done daily, and the requirements for painting were more intricate, it was necessary. Would it not be more sensible to have a shorter period now that the frills in many crafts have been cut out? If apprenticeship training is to last five years, could not a portion of that period be used for graduation in one trade, and the latter part used for learning a second trade? Those few with special aptitude could still go on with some kind of post-graduate study, to become master craftsmen in the trade of their first choice.

New techniques of building have brought with them the now familiar controversy—who should do the job? A decision in this matter is made usually either in favour of those who work in the material used, or those who by tradition do that job. For example, opinion differs as to whether a plumber or carpenter should fix a metal window.

A carpenter is a man who has learnt to become a craftsman in wood. Woodwork is his trade. New techniques will bring with them *new trades ;* this change must be frankly faced. The new trades may be simpler to manage and may require basic training rather than craft training. There may therefore be good cause for short-term periods of instruction for those, who by attending them, could get a plus rate for the job.

These and like matters need open and clear-sighted discussion, not only to improve the efficiency of the building industry, but to avoid unnecessary hardship to the present members of individual crafts or trades. Everyone in the industry wishes the April conference well and will look forward to the results of it with great interest.

Mr. and Mrs. Anthony Blee leaving the crypt of Coventry Cathedral after their wedding. (Photo: Portman Press Bureau Ltd.)

EVENTS AND COMMENTS

CATHEDRAL'S FIRST WEDDING

Large parties of friends and relations converged from north and south on Coventry last Saturday week for the wedding of Miss Gillian Spence, daughter of Mr. and Mrs. Basil Spence, and Mr. Anthony Blee, A.R.I.B.A., son of the Rev. Arthur Blee and the late Mrs. Blee. The wedding took place in the recently consecrated Chapel of the Cross beneath the cathedral. The Bishop of Coventry officiated and was assisted by the Very Rev. H. C. N. Williams, Provost of Coventry, and the bridegroom's father. The reception was held at the Leofric Hotel, where the room had been decorated by some of Mr. Spence's staff, with dozens of cut-out paper angels. The bride and bridegroom received the guests standing, with the two delightful child attendants, within the arms of an open-work screen. The wedding cake was a spendidly rococo affair in bright colours. Mr. Anthony Blee is a member of Mr. Spence's design team, and Mrs. Blee has for some years been her father's secretary. In the circumstances, it would have been quite unthinkable for their wedding to have been held anywhere else. The bride looked charming in pale mauve. The best man was Mr. Michael Blee.

ARE "U" VALUES NON-"U"?

The London Brick Co. entertained the Press at their research laboratories at Stewartby recently. They did so in the grand manner. Euston Station was plastered with notices about the L.B.C. special at No. 15 platform. The stationmaster himself, in silk hat and with a red carnation in his buttonhole, was there, supported by two bowler-hatted officials and four with brass-bound peaked caps. The train really looked like a special, consisting of two first-class dining cars with brake-vans at either end. The guests were welcomed on the platform by Mr. Jeremy Rowe, personal assistant to the managing director, and were suitably entertained all the way to Stewartby, where special detraining steps were provided as there is no platform. Buses conveyed the party fully 200yd to the laboratories where they were received by Sir Ronald Stewart, Bt., the deputy chairman, and Mr. Tom Boxall, the company's chief technical officer. A full report of the proceedings will follow in a later issue, but, put briefly, the L.B.C. has for four years been carrying out tests on the conductivity of various types of brick and concrete external walls. They have compared the results of these tests with the calculated figures which are in daily use in the building industry. The comparison shows that, to put it very mildly, the calculated "U" values can be very misleading. These calculated "U" values come from small-scale laboratory tests on individual examples of dry materials. The L.B.C.'s tests have been carried out by measuring the conductivity of actual walls over a long period in all weather conditions. The results tend to show that by using cavity wall construction with an inner leaf of hollow clay building blocks, "U" values comparable to those of the officially recommended cavity wall with clinker block inner leaf are obtained. The results further show that the conductivity of many types of wall construction varies very considerably in varying weather conditions, particularly in hot weather.

The L.B.C. points out that its experiments have been carried out on a very small scale—only six wall panels can be tested at a time—but they hope that the results of their work will not only do something to show that the required standards of thermal insulation can be obtained more economically by using clay products, but also that there is need for large-scale research on the whole question. It is clear that we must now treat all calculated "U" values with the greatest reserve and press for manufacturers of insulating materials to back their claims with the results of field trials in the place of laboratory tests.

Perhaps the outstanding point of the L.B.C.'s research is the very low "U" value attained by a cavity wall of brick and hollow clay block where the cavity was filled with glass fibre. The measuring figure was 0·14. The L.B.C. does not attempt to answer the obvious question as to whether this form of construction would satisfactorily exclude the weather. The B.R.S. is said to have tested it for waterproof qualities, but no results have been published, although rumour has it that they were good. So low a "U" value for a small increase in cost is a challenge to manufacturers to show, by measurement, that this form of construction is safe.

The full story of the interesting and very worthwhile experiments is contained in *"U" Values, the Facts*, obtainable from the L.B.C.

Mr. Boxall's discourse was followed by a slap-up buffet lunch, a tour of the laboratories and a further trip in that very special train.

THE CORB EXHIBITION

I cannot think of any architectural event in the past that has caused such a stir as the Le Corbusier Exhibition at the Building Centre. Attendance has averaged about 1,500 a day, with a record of 2,500 on the first Thursday. At the time of writing 17,000 people have seen the exhibition. At first more than half were students; almost every pair of black stockings and every beard in the Home Counties must have been there during the first week. The crowds are now more mixed, elderly people with dogs, and clergymen are to be seen in surprising numbers. Bowler hats and mink coats are rare, but eminent architects of the older school can always be found there. Some have been seen over and over again. There have, I understand,

been few complaints. One gentleman cried aloud as he dived for the lift, "Either he is mad or I am". Another, a well-known architect, thought it was the worst exhibition he had ever seen, badly arranged, badly captioned and generally quite hopeless. "They should have gone to Zurich for a designer", he said to me. I told him that the exhibition had in fact been designed in Zurich by two Swiss architects. It made no difference. Nothing was right. All the Press notices were terrible. I formed the opinion that he thought that Corb had been insulted in some way, but I never found out as I was called away at the crucial moment.

The Third Programme discussion on "Le Corbusier and the Future of Architecture" sent me quickly off to sleep. I found it vague and unhelpful. Others, whose opinions I respect, thought it was good. It seemed to me that George Kassaboff, the A.A. student, talked more sense than Shankland, Stirling, Rowe and Lubetkin put together. The B.B.C. has, no doubt, helped the excellent publicity which has been bringing in the crowds. When I was last there, I saw a girl with a recording machine interviewing a fine mixed bag of visitors. You may have heard the result on Monday in "Today".

Critics of the exhibition have been somewhat ungenerous to the committee and those who helped them. The crowding of exhibits, the fact that the show has had to be presented in two parts—with many things left out altogether—and the general setting have all been adversely criticized. It should not be forgotten that London very nearly missed the exhibition altogether. A lot of money had to be raised: the hire of the exhibition, with an additional fee, plus all expenses for the architect who lays it out and sets it up. No suitable hall was available in London, and if the Building Centre had not been able to offer free every inch of its spare space, and some more, the exhibition would never have come to London. Money was raised from subscribers and from the very excellent catalogue. It seems that all expenses will be cleared, after some worrying days before the opening. It is a poor reward for a hard-working committee full of initiative to be criticized for the shortcomings of an exhibition which has caught the public imagination as no other show of architecture has ever done. As to the setting, I have heard several people say that it looks better in London than it did in Liverpool.

IRANIAN COMPLAINT

A well-known Teheran architect came to see me last week. He knew this country well, having been trained here and having lived here for 17 years. He was almost in despair about British exporters of building materials. He would like to use British products as he is familiar with them, but he can obtain no technical advice or after-sales service in Iran. British firms, he told me, did not seem to worry about the technical ability of their agents. The agent for a make of British boilers might well prove to be a cloth merchant. By comparison, Dutch, Swiss and German firms were well represented technically. A Swiss firm of lift engineers had taken Iranians to Switzerland for training. The German embassy took a great interest in building work in Iran; architects were flooded with German trade literature. Nothing was ever received from Britain. The only exception to this gloomy tale was provided by one of our largest electrical firms, who were, he said, opening a branch in Teheran.

I feel sure that there must be some answer to this, although I have heard similar complaints before. Can any exporting manufacturer provide an explanation?

CHURCHILL COLLEGE

I have already heard mutterings from some of those invited to compete in stage I of the Churchill College limited competition. The argument is this. Why tie up 20 busy firms of architects for six weeks on a preliminary scheme which is unlikely to give a better guide to the best four firms than an examination of their past work? Eyebrows, too, have been raised about the requirement that windows should be shown on the very small-scale drawings required.

One of the R.I.B.A. competition rules lays down that in limited competition all those taking part shall receive a fee, unless it is ruled otherwise. This competition is one of the exceptions. It would be interesting to know why. Displeased competitors may naturally withdraw, but that would be a pity.

The list of firms, published last week, is a comprehensive one, including a wide range of designers from near romantics to brutalists. The results should be, at least, interesting.

ARNE JACOBSEN FOR OXFORD?

The Times announcement that Professor Arne Jacobsen, the well-known Danish architect, may design the new buildings for St. Catherine's College, Oxford, comes like a cold shower. I believe that his appointment as consultant was announced in the Danish Press some time ago. His appointment as executive architect was strongly but secretly tipped a week ago. It seems that he may work with a British colleague. It is interesting to speculate upon who it might be.

Professor Jacobsen's visit for the opening of the exhibition of his work at the R.I.B.A. on February 26 will be the more interesting for this impending appointment. Some may regard it as a blow to British architects; others, more generous, will welcome a building by one of the leading masters. I have seen enough of Arne Jacobsen's work to have no qualms—well, no very serious qualms. You will be able to see for yourself at his exhibition.

ABNER

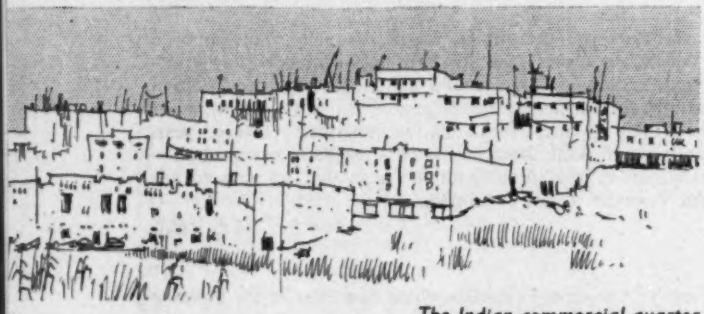
From Le Corbusier Exhibition which continues at the Building Centre until March 6

Letter from Nairobi—I

IAN MARSHALL

This feature commences a series of letters from architects in different parts of the Commonwealth who will report to the A. & B.N. from time to time on current conditions in their part of the globe

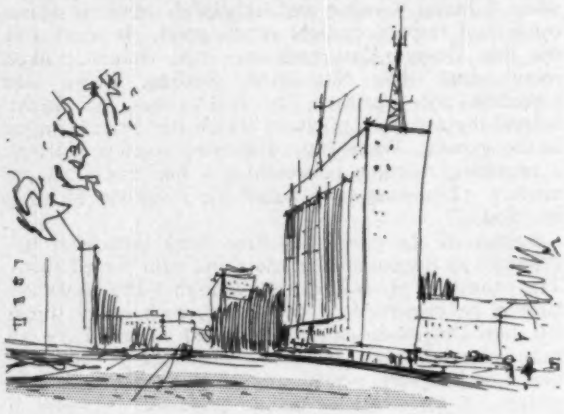
THE most important thing happening in Kenya today, socially and economically, is the revolution which is taking place in the tribal lands of the Kikuyu. Largely stimulated by the Mau Mau emergency, bringing in its train funds from Britain for land development, a great mass of "detained" persons to be directed to some useful form of employment, and above all a sense of urgency, this revolution is comparable with the "Enclosures" in medieval England. The tribal land is being surveyed, fragmentary smallholdings are being consolidated into manageable units, title-deeds are being issued for the first time and the new farms are being laid out, planted, and farmed with the closest supervision and material assistance of government agricultural officers. In this way productivity has been trebled in some of the areas so far completed, and what was once a food-importing district now has a surplus for export to other areas. For the first time "cash crops" such as coffee are being grown by the Africans, rather than just patches of vegetables for their own day-to-day needs. Pedigree stock for breeding, artificial insemination, fertilizers, crop-sprays, and seedlings mean more to a primative people at this stage than trade unions or parliamentary votes.



The Indian commercial quarter

Traditionally, a man's land was divided on his death between his sons—it did not all devolve upon the eldest, as in Europe—consequently land-holdings got progressively smaller and more scattered. These ill-defined fragments of land became a recurrent source of disputes, and they were quite impossible to cultivate in a methodical, efficient manner. In the process of land consolidation the area of a man's total holdings is measured, and he is granted a single block of land of equivalent size and quality, often a long slice with some river frontage and with road access. The Kikuyu tribal land on the slopes of the Aberdares largely consists of numerous steep-sided fertile valleys with roads running along the ridges between them.

Together with the consolidation of scattered smallholdings goes the creation of new towns. If a man's total holdings come to less than the minimum economic farming unit, usually something in the neighbourhood of six acres, he is given instead a plot in one of the new towns. Traditionally the Kikuyu tribal land presented an overall pattern of huts and cultivated patches—there were virtually no villages in the physical sense. During the Mau Mau terrorization the scattered huts were abandoned and people had to retire at night into tightly clustered villages on hill-tops, protected by moats, pallisades and watch-towers. Today these embryo towns are being given legal significance, with surveyed streets and plots and provision for eventually all the panoply of civic resources—schools, markets, law courts and churches. What is being done now will set the pattern for centuries.



Police headquarters with radio masts on the roof

Land consolidation is being conducted by administrative officials in close liaison with agricultural officers. The whole agricultural development, including schemes of irrigation and land settlement in hitherto uncultivated areas, is being carried out with truly Victorian enterprise and assurance, but, astonishingly, the new towns connected with all this are being planned and laid out without the full-time services of a staff of planners and architects. The Government Town Planning Department is consulted on the lay-outs, but it is hard to imagine any other country in the world where such large-scale projects would be undertaken in these days without the appointment of a specialized team of qualified consultants. One has only to think of "Brasilia", or the T.V.A. enterprise in the U.S.A., to realize the sort of opportunity which is being disregarded; moreover the prospect of making irrevocable mistakes at this stage, whose effect is going to be felt in 30 or 40 years, is indeed a serious one. It is, perhaps, characteristically British to get on with the task in hand without being sidetracked by these airy notions, without publicity and fuss, and making use of the materials and personnel that are available, but it is rather a shock to find the Master Plans for new towns being laid down with such cheerful insouciance.

The most serious mistake would be to apply English standards and ideals in the planning of towns in such a different context. The function of a town was so degraded and the environment was made so unpleasant during the industrial revolution in England that we are still undergoing a reaction. Even here in Africa Englishmen unconsciously recoil against the idea of a town—represented by Wigan—and strive to achieve a country-suburb ideal perhaps best represented by Ascot or Virginia Water. Indeed in the European residential areas of Nairobi this ideal has to a great

extent been achieved: the European population of Nairobi is 20,000, and yet some "commutors" live as much as 15 miles from the centre and almost all the residential areas are made up of large plots with plenty of trees and luxuriant planting. In effect almost no Europeans live in Nairobi—there are business premises in the centre and people live in the countryside round about.

The new towns being set-up in the tribal lands must be adapted to something more like medieval European conditions. In the first place the social and political structure is relatively primitive, small-scale and close-knit. Walking distance is the most important dimension, and walking-pace should govern the visual scale. Pedestrian circulations are the lifestream of the community, and for many years roadways will be used primarily by service vehicles. The medieval town's qualities of security and intimacy, the contrast of tight, gregarious, civilized urbanity with open country immediately at hand, have been overlooked in the modern fear of high densities.

There is a danger in thinking too much *on paper*: we have become entangled with the conception of a town as a two-dimensional pattern. Coloured zones on a master plan, superimposed with a pattern of traffic routes, with road reserves and curtailments at such road junctions, are completely meaningless in three dimensions. Buildings are the positive elements visually, and a space cannot be defined except by the mass of the buildings about it. Town planning cannot be regarded as providing the streets and plots, and architecture as an inviolable personal affair as if there was a bank of fog on the edge of one's own site. To impose building lines, for instance, around all the boundaries of a plot, is to create not a town but a collection of buildings.

Typical early house of wood and corrugated iron

Unless there is close connection between those who plan and those who build, planning tends to become a purely negative process concerned largely with restraining developers from causing interference to one another. The only really effectual positive planning seems to take place where one authority is powerful enough, whether it be the L.C.C. at Roehampton or General Motors at their Technical Centre, to be able to sponsor, plan and build by itself. In the new towns of the Kikuyu tribal lands a marvellous opportunity exists for such constructive, comprehensive development; it is essential to consider the planning and building of these towns, by whatever methods, as a single operation. There is ample precedent—in work of Group 10 C.I.A.M. in 1955, of A.T.B.A.T. in Morocco, of Fry, Drew, Drake & Lasdun in Iran and West Africa, and of José Louis Sert and Paul Lister Wiener in Latin America.

It is high time the responsibility was faced, for upon the form and suitability of these new towns rests to a large extent the pattern of the future development of a whole nation. The impressive achievements of land consolidation in agriculture must now be supported by an equivalent imagination in the development of the towns.

NEWS

Opera House Contract, Sydney

The contract for building the first stage of the Opera House in Sydney, Australia, is going to an Australian subsidiary of Civil and Civic Contractors, a Netherlands company. The New South Wales Government approved its tender of nearly £A1½ million on Tuesday. The first stage will consist of the lower half of the building and outside works. Work will begin in about two months' time.

It is expected that the total cost of the Opera House will amount to nearly £A5 million. The State Government is promoting big lotteries to raise some of the money.

Arne Jacobsen Exhibition

An exhibition of the work of Arne Jacobsen, which will be opened by the Danish Ambassador, is to be presented at the R.I.B.A. from February 26 to March 25, 1959 (Mondays to Fridays, 10 a.m. to 7 p.m.; Saturdays, 10 a.m. to 5 p.m.).

Town Planning Institute

The Town Planning Institute will hold its annual spring meeting at Southport on Thursday and Friday, May 21 and 22. Local authorities are invited to appoint representatives. The address for inquiries is 18 Ashley Place, London, S.W.1.

The annual meeting of the North of England division of the institute will follow on Saturday and Sunday, May 23-24, at Southport.

Ford Foundation Travel Grants

Four travel grants to the United States have been announced by the English-Speaking Union. These provide for the return fare, travel within the States, and a subsistence allowance for up to 56 days, between September, 1959, and July 1, 1960. Applicants must be British subjects, aged between 30 and 40, who are experienced and practising in a branch of the arts. The closing date for applications is May 2; the address for inquiries is The Secretary, The English-Speaking Union, 37 Charles Street, Berkeley Square, London, W.1.

The "Sanitaryware Prize"

An international competition entitled the "Sanitaryware Prize"—value 5,000 Swiss francs—is being sponsored by the Fédération Européene des fabricants de Céramique Sanitaires (F.E.C.S.), and is open until July this year. The object of the competition is to promote the installation of modern efficient ceramic sanitary fittings, "as a symbol of civilization and social progress in every country".

The prize will be awarded to the author of an article, run in European periodicals or daily newspapers, describing and stressing under the social, technical and functional aspects, the problem of sanitary and hygienic fixtures, with the various possibilities of developing those services indispensable to the civilized life of any people. The articles must have appeared between November, 1958, and July, 1959.

Eight copies of the publications, which will not be returned, should be submitted to: the Secretary's Office, F.E.C.S.—Prize, 3, Via Filippo Corridoni, Milan, Italy. Authors or publishers may submit entries, and the jury is free to consider other articles which were not submitted

NEWS CONTINUED

by those responsible for them. With the approval of the authors concerned, the F.E.C.S. will publish, in a booklet of four languages, all articles considered. Mr. Angelo Lupi, president of the F.E.C.S., will preside over the jury, which will be composed of three representatives of the Press and four representatives of the sanitary fixture manufacturers.

Truscon Travelling Scholarship

Truscon is offering a travelling scholarship of £125 again this year to enable an Associate of the Royal Institute of British Architects to undertake a continental tour of about three weeks' duration. The winner will be accompanied by a member of the Company's technical staff on a similar scholarship and they will jointly study reinforced concrete work in Europe, with particular reference to the collaboration between architect and engineer. A joint report will be prepared, the use and copyright of which will remain at the disposal of the company.

Applicants must be under 35 on April 3, 1959, the closing date for applications. The address for applications is the Secretary, Truscon Limited, 35/41 Lower Marsh, London, S.E.1.

R.S.A. Academicians

Mr. J. L. Gleave, architect, and Mr. William M. Glass, painter, have been elected Academicians of the Royal Scottish Academy. Mr. Gleave was head of the School of Architecture, Edinburgh College of Art, from 1936 to 1950. He is a member of the Edinburgh Princes Street Panel set up to advise on the control of building development in that area.

Professional Announcements

Richard Nickson, M.A.(CANTAB.), F.R.I.B.A., F.R.S.A., A.A. DIP., has reopened a branch office in the Liverpool area, in conjunction with Mr. T. C. Ribchester. Present accommodation address: 10 Sunnyfields, Ormskirk, Lancashire (telephone: Ormskirk 2698).

David Mylne, A.R.I.B.A., A.R.I.A.S., has left the British Aluminium Co. Ltd., Edinburgh, to take over the practice known as Walter Duns, chartered architect, Langtongate, Duns, Berwickshire (telephone: Duns 3189), which he will continue under that style and at that address.

Owing to continued ill health, Mr. L. A. Culliford, F.R.I.B.A., F.R.I.C.S., M.T.P.I., has retired from the firm of L. A. Culliford & Partners. The practice will be carried on by the remaining partners, Leslie A. Chackett, F.R.I.B.A., F.R.I.C.S., Richard Henniker, M.A., F.R.I.B.A., and Jeffrey W. W. Lyde, A.R.I.B.A.

R.I.B.A. Council Meeting: 3.2.59

Appointments

Representatives on A.R.C.U.K. for the year beginning April 1, 1959.

On the Architects' Registration Council: D. H. Beaty-Pownall, J. B. Brandt, J. E. A. Brownrigg, L. A. Chackett, Thomas S. Cordiner, Dr. F. F. C. Curtis, R. E. Enthoven, R. O. Foster, S. Vincent Goodman, R. D. Hammett, J. Kenneth Hicks, Leonard C. Howitt, R. J. Hurst, H. L. Kelly, Cecil Kennard, A. H. Ley, H. M. Lidbetter, Howard V. Lobb, E. D. Lyons, S. W. Milburn, E. D. Mills, T. E. North, J. T. W. Peat, F. B. Pooley, F. L. Preston, W. A. Rutter, R. H. Uren, A. Neville Ward, David B. Waterhouse.

On the Admission Committee: L. A. Chackett, H. Martin Lidbetter, E. D. Lyons, J. T. W. Peat.

Mr. David M. Waterhouse was appointed joint secretary of the Joint Contracts Tribunal in place of Mr. C. D. Spragg. The other joint secretary is Mr. Howard A. Close (N.F.B.T.E.).

Technical Literature Competition

On the recommendation of the Science Committee, it was agreed to sponsor jointly with the Building Centre a third competition for trade and technical literature to be held during 1959 on the same basis as the two previous competitions.

Chamber of Commerce Year Books

On the recommendation of the Practice Committee, it was agreed to discuss with the A.R.C.U.K. arrangements for relaxing the restriction against architects having their names in local Chamber of Commerce Year Books under classified professional headings. It was thought that such a relaxation would bring the architectural profession into line with the other leading professions, the names of whose members are allowed to appear in these directories.

Pearce Edwards Bequest

A legacy of £1,500 has been received under the will of the late F. E. Pearce Edwards upon trust for the provision of an annual prize to be known as the Pearce Edwards Award to be restricted to official architects and/or members of their staffs (defined as architects remunerated by salary and/or employed in an official architectural department by any government, local authority or public company within the British Commonwealth and irrespective of age) for a design thesis or essay based on a specified subject appertaining to or connected with any branch of the work of such official architectural departments.

The council accepted this bequest and instructed the Board of Architectural Education to consider the appropriate administrative arrangements for the award.

Urban Motorways

The council received a report on the results of action so far taken in pressing for having available qualified architectural advice at the outset in the study of planning for urban motorways. It was understood that support of the institute's case would be forthcoming from the Royal Fine Art Commission, the Central Council of Civic Societies, the Town Planning Institute, and the Civic Trust. In addition the institute's approach to the Arts and Amenities Committee of Members of Parliament is receiving consideration. Presidents of allied societies in the provinces, where study groups are being set up, reported on action taken locally to bring home the necessity for adequate town planning and civic design in relation to the new feeder roads.

The president said he had written letters stressing the importance of this matter to *The Times*, the *Daily Telegraph*, the *Manchester Guardian*, the *Yorkshire Post*, the *Scotsman* and the *Glasgow Herald*.

It was agreed that this subject was of such paramount importance for the future appearance of town and country that every effort should be made to bring home to those concerned, the danger of planning on too restricted a technical front. As an immediate step, it was agreed to draw the attention of all members to the matter by means of a study to be published in the *R.I.B.A. Journal* and to ask the technical Press to help by giving the maximum publicity to the subject.

A further development of the institute's campaign would be the production by the Town and Country Planning and Housing Committee of a more detailed study including a survey of similar developments in European countries and the publication of a treatise with suitable illustrations. It is intended that this shall be launched with the help of the National Press.

Law and Administration

Building By-laws

It has long been the subject of comment among architects and builders that much time must be wasted when dealing with local by-law requirements since these vary from place to place. Sir Alfred Bossom, M.P., drew the attention of the Minister of Housing and Local Government to this matter in the House of Commons on January 21; it was observed that there are at present "over 1,400 locally made building by-laws in England and Wales".

The Minister stated that he intended to consider whether it was desirable to change to a single centrally-made set of building regulations as is to be provided for Scotland. He added:

"I propose to invite the views of the local authority associations, the London County Council, the interested professional bodies and the building industry."

Architects, builders and others are thus served with notice and may wish to begin at once to consider what new legislative arrangements they desire. Meanwhile, the Minister, in *Circular 5/59*, dealing with smoke control areas, has once again said that he "hopes that the small number of urban authorities in black areas who have not yet made a building bylaw for smokeless heating and cooking appliances in new buildings will now do so".

Local Government Finances

The *Local Government Act, 1933*, and the *London Government Act, 1939*, made detailed provisions for the handling of receipts and payments by local authorities. The Minister of Housing and Local Government has drawn the attention of local authorities, in *Circular 4/59*, to the fact that these provisions are now replaced by those of Section 58 of the *Local Government Act, 1958*, and observes that:

"The new provisions will enable all local authorities to review present rules and adopt the procedures best suited to their particular needs."

The Circular is accompanied by a useful memorandum on the general principles of local authority accounting.

London Government

The Royal Commission on Local Government in Greater London have announced that they propose to hear oral evidence beginning in early March: details are to be announced later. Any person or body considering the possibility of giving evidence would be well advised to read the written memoranda of evidence from Government departments which was published by H.M.S.O. on January 26, 1959.

Plant and Machinery

Builders and contractors are likely to be interested in the Report of the Committee on the Rating of Plant and Machinery. The committee recommend that a new list of all types of machinery and plant liable to local rates should be adopted. This is intended to replace the present list, which was brought into force in 1927. The Minister of Housing and Local Government has said that he intends to make an order, based on the committee's statement, to be effective from April 1, 1959. He is prepared, however, to take into account any representations on the report of the committee which are received in the Ministry by February 28.

In Parliament

More Parking Meters

The Minister of Transport, Mr. Watkinson, told the House in a written reply that he had received formal applications from Manchester, Liverpool, Bristol, Birmingham and Sheffield for the extension to them of the provisions of the Road Traffic Act concerning parking-meter schemes. He was, he said, considering the form of a composite order in which these and possibly other areas could be specified. In answer to another question, he said that he hoped to be able to make the necessary order and regulations for the St. Marylebone parking-meter scheme early next month.

The Minister said that he had asked for particulars of a new type of parking meter brought to his attention by Mr. Gresham Cooke. This, Mr. Cooke informed him, was about to be introduced in South Africa and was a device which could be fitted inside individual motor-cars and would avoid the disfigurement of the pavements.

Mr. Watkinson added, however, that he would not be prepared to defer consideration of proposed parking-meter schemes on these grounds. The use of the South African device in this country might, he thought, need legislation. (February 11.)

Kingsway Underpass Scheme

The London County Council are considering two alternative proposals for the conversion of the old Kingsway subway into an underpass for traffic from Kingsway to the Embankment. This emerged from a reply by Mr. Watkinson to two questions about the subway. (February 11.)

Electrical Road Heating

Interest in electrical heating of roads seems to be growing in the Commons, but the Government appears to maintain a carefully impartial attitude towards it. A description of the experiments of the Department of Scientific and Industrial Research was given by Mr. Nicholls, the Parliamentary Secretary to the Minister of Works, in answer to a question from Sir William Anstruther-Gray. Mr. Nicholls said that there had been satisfactory progress so far in the experiments. Surfaces of this kind had been laid at West Drayton, in Middlesex, in 1956, and the results were at the disposal of any highway authority that might wish to apply this method to particular stretches of roads. It could most readily be installed in new roads or on stretches due for resurfacing. The method had so far been confined to steep slopes. In answer to further questions he estimated the cost at about 30s a square yard and the running cost at about 2s 6d a square yard in winter. Mr. Nicholls carefully by-passed a jibe from Mr. Ernest Davies, that it might have been applied to the Preston motorway, by remarking that this did not come within the ambit of his department. (February 2.)

Stonehenge Costs

The cost of erecting the trilithon and the two outer circle stones at Stonehenge was £10,350. This was disclosed by the Ministry of Works in answer to a question from Mr. Eric Fletcher. (February 3.)

The Victoria Tube

Mr. Watkinson, the Minister of Transport, gave a cool answer to two Labour members who pressed him to make an announcement about a start on the still fictitious Victoria-Walthamstow underground line. It raised, he said, considerable financial problems, and, so far, the British Transport Commission had been unable to find room for it in their budget proposals. Expense regardless, Mr. Eric

Fletcher suggested that this was a real solution to the increasing traffic problems of London. Mr. Watkinson replied tartly that it would cost £55,000,000 and lose £3,000,000 a year. Mr. Ernest Davies suggested that it would provide work for those unemployed and would take up some of the unused capacity in the steel industry. Mr. Watkinson said he thought that the real question to decide was whether or not the £55,000,000 might not be better employed in providing more off-street parking in London. (February 4.)

The Preston By-pass

Mr. Watkinson, despite the magisterial rebukes administered by such contrasting journals as the *Manchester Guardian* and the *Daily Mail*, carefully stone-walled his way through more questions about the frost damage to the Preston By-pass. He fully supported, he said, the action of the Lancashire County Council in pressing this road scheme forward, and thought it best to keep a sense of proportion about it. He was a little nettled by Mr. George Strauss's suggestion that no one in the country would believe his statement that nobody was to blame, and said that it was "quite natural" that a different method of construction was being used on the London-Birmingham motorway. In a further written answer to similar questions, he added that repairs to the road were proceeding as fast as frost conditions would allow, but the date by which they would be completed depended on the weather. The cost of the repairs would be about £5,000. In addition, in order to draw off the water which had collected in the road and as an insurance against further damage, the county council had decided to install additional drainage alongside the carriageway where necessary. This work was now completed and he was told that its cost would be about £90,000. He denied, again, that there was anything wrong with the design of the road. (February 4.)

Coming Events

The Town Planning Institute (Scottish Branch)

February 19 at 7 p.m. "Housing Layout—Home and Abroad", by T. F. Lyon, A.R.I.B.A., A.M.T.P.I. At the North British Hotel, Edinburgh.

Institute of Landscape Architects

February 19 at 6.15 p.m. Members' Work. At 1 Park Crescent, Portland Place, W.1.

Society of Chemical Industry

February 19 at 6 p.m. "Paint and Paint Films as Chemical and Physical Structures", by Dr. S. H. Bell, of the Paint Research Station. At 14 Belgrave Square, S.W.1.

Royal Institute of British Architects

February 19 and 20 at 6 p.m. "Symposium on Laboratories No. 2." At 66 Portland Place, London, W.1.

Cement and Concrete Association

February 23 at 7.15 p.m. "Practical Formwork Design and Construction for Concrete", by J. G. Richardson. At North-East Essex Technical College and School of Art, Sheepen Road, Colchester.

The Faculty of Building

February 23 at 7 p.m. "Dry Construction", by J. Hesketh-Jones, M.F.B. At Church House, Westminster, S.W.1.

Willesden Technical College

February 23 to 28. Monday to Friday, 10 a.m. to 8.30 p.m. and Saturday 10 a.m. to 5 p.m. Silver Jubilee Exhibition of the Building and Engineering Departments. At Denzil Road, Willesden.

Readers who enjoyed the stories in issues 10/12/58 and 31/12/58 will welcome another John and Mary:

A New Year Resolution

by ALBERT ANARISC

"MARY, I'm about to make a New Year Resolution."

"Rather late, John."

"Very late, dear. You see, I resolve that this year I shall get out of quantity surveying."

"What, at thirty-four? And do what?"

"Two questions, two answers. Yes, at thirty-four because at thirty-five I shall be twelve months more frustrated, and, secondly, I don't know."

"Commercial traveller?"

"Representative, darling, is the word you want. Commercial travellers had to change their name after all those jokes, so they are all representatives now. Yes, I could be a representative but it has its disadvantages. I rather favour a job with a contractor, although I admit I sometimes wonder if I could be brutal enough to make a lot of money for a builder. There are lots of honest builders' surveyors, but the ones that make the money are those that keep mum when they see the professional quantity surveyor erring in their favour. I couldn't do that so I would never be very rich, but I am sure I could quite quickly learn to be an honest builder's surveyor and earn more than I do with Smudge."

"But, John, if you stay with Smudge a little longer he may make you a partner."

"Mary, I'm sorry to have to tell you that after a great deal of thought I have decided that I don't want to be a partner."

"But, why not. Don't you want to make money?"

"Yes, but I also want to do something in which I can express myself (a bill of quantities has its limitations in this respect) and something that satisfies me. I am now convinced that being a partner in a quantity surveyor's office will never solve either of these problems. Look at Smudge. We all like him, he's fair minded and thoughtful, he's got a car and a ciné camera and a detached house, but he never seems content. The nearest he ever gets to being happy is feeling pleased with himself. No, I want something more satisfying."

"So quantity surveying isn't satisfying?"

"No, not to me, and not to a good number of quantity surveyors I know. I believe, however, that it used to be satisfying and I think it still could be satisfying, but as it stands at the moment it satisfies morons. You never get to the end of a day's work, everything carries over to tomorrow and then to next month and then to next year. You are never finished. A quantity surveyor's office has become a linen basket that is always full of dirty clothes."

"But is there no satisfaction in helping somebody; in giving a service?"

"Yes, if you do these things, but this is just the trouble with quantity surveying these days, we don't give enough help or enough service. We are far too busy looking through the trees for the wood. The quantity surveyor was a very useful person in con-

ception—an honest and fair-minded fellow who would give builders an equal footing on which to tender and who could help the architect through his financial problems. Unfortunately, human nature being what it is, builders soon found that the more thorough our measurements the safer life was for them, and the architects—the unscrupulous architects—soon discovered that we never refused when they asked us to do some of their work for them. So here we are in 1959 measuring unnecessarily fussily for builders, writing schedules for architects, obsequious because we like to eat, never saying no because we're fond of breathing, put upon and shuttlecocked from architect to builder and back again, crazy mixed-up kids who know what's wrong with them, but who cannot help themselves. And it's small consolation to know that, as somebody said the other day, we're like the factory wall, more sinned against than sinning."

"But if quantity surveying is so frustrating, why do so many people still go in for it?"

"Darling, as they say at the political meetings, I'm very glad you asked that question. First of all there is not a great number of quantity surveyors in the country. Secondly, I suppose about 25 per cent of the juniors coming into our office leave quantity surveying within five years. They don't like the look of it, they join the Army and never come back, they go working for builders or selling second-hand cars or they take up farming. Add to these the few that take jobs abroad when they are qualified and what have you left? A sprinkling of intellectuals and personality kids who become partners and go places and a good solid backbone of mutts like me about any one of whom Freud could have written a best seller. A junior in a quantity surveyor's office spends his first two years writing things like 'to be used as directed by the architect and deducted either wholly or in part if not required' and his next two years checking other people having written it. Then he starts to measure, which seems fun, but he quickly discovers that it is only fun because working up was so dull. It's like graduating to lemon juice after four years on water. After a few years of measuring he finds that it becomes an insult to his intelligence and he begins to wish that he had stayed in the army or gone off selling second-hand cars like those smart lads he used to know. But to do this now needs courage and when you are thirty-four you look around for the courage that you thought you had, but it isn't there. You left it behind when you took a safe job and you haven't seen it since. . . ."

"You sound unhappy."

"Unhappy! there's more yet. It is because our work has become so fussy and laborious that we are not attracting the right sort of junior. You cannot blame an intelligent child for steering clear of a job in which he works for three years at £6 a week writing ditto, ditto, ditto from 9 to 5.30 and answering correspondence courses from 7 to 9. And it's no good telling him that although his money is low his social standing is high. He would rather have the money."

"Yes, darling, but . . ."

"But nothing. I haven't finished. Another reason we can't attract the right people is that we can't pay them enough. About the best we can do is to attract the sons of friends at the club—friends who are not quantity surveyors, of course. The bright boys go into industry these days—lured by the ads. in the high-brow Sunday papers. That's where the money is good, in among the long-range ballistic missiles. Quantity surveyors can't pay any more because a chap just isn't worth any more doing the work a quantity surveyor's assistant does. On two and a half per cent—which is our fee—there is a limit to what you can pay a chap for being a semi-skilled robot."

"Which is what you are?"

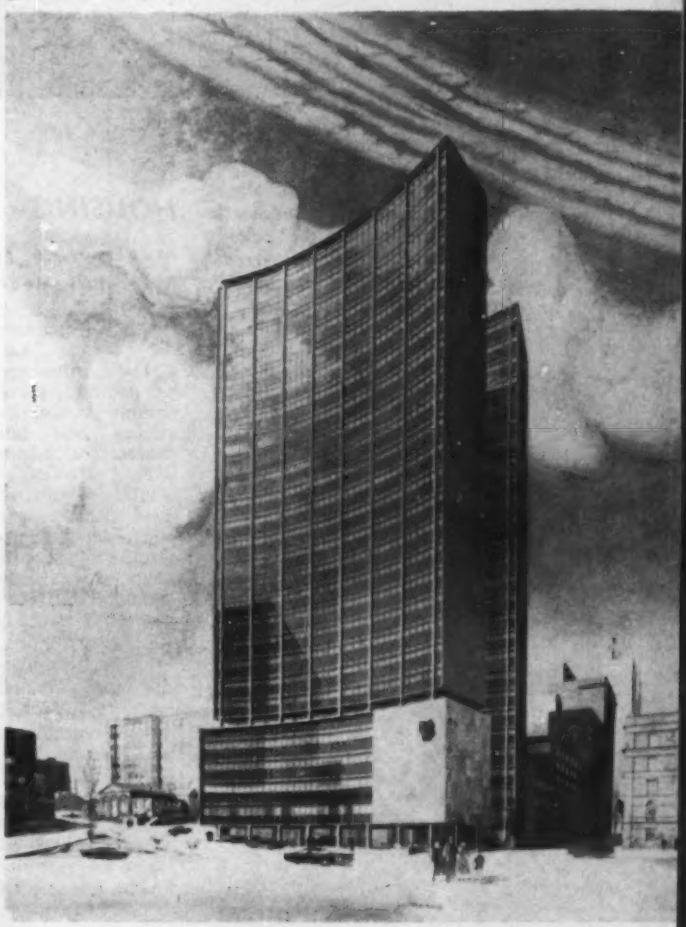
"Heavens, no, dear, I'm qualified. I'm fully skilled."

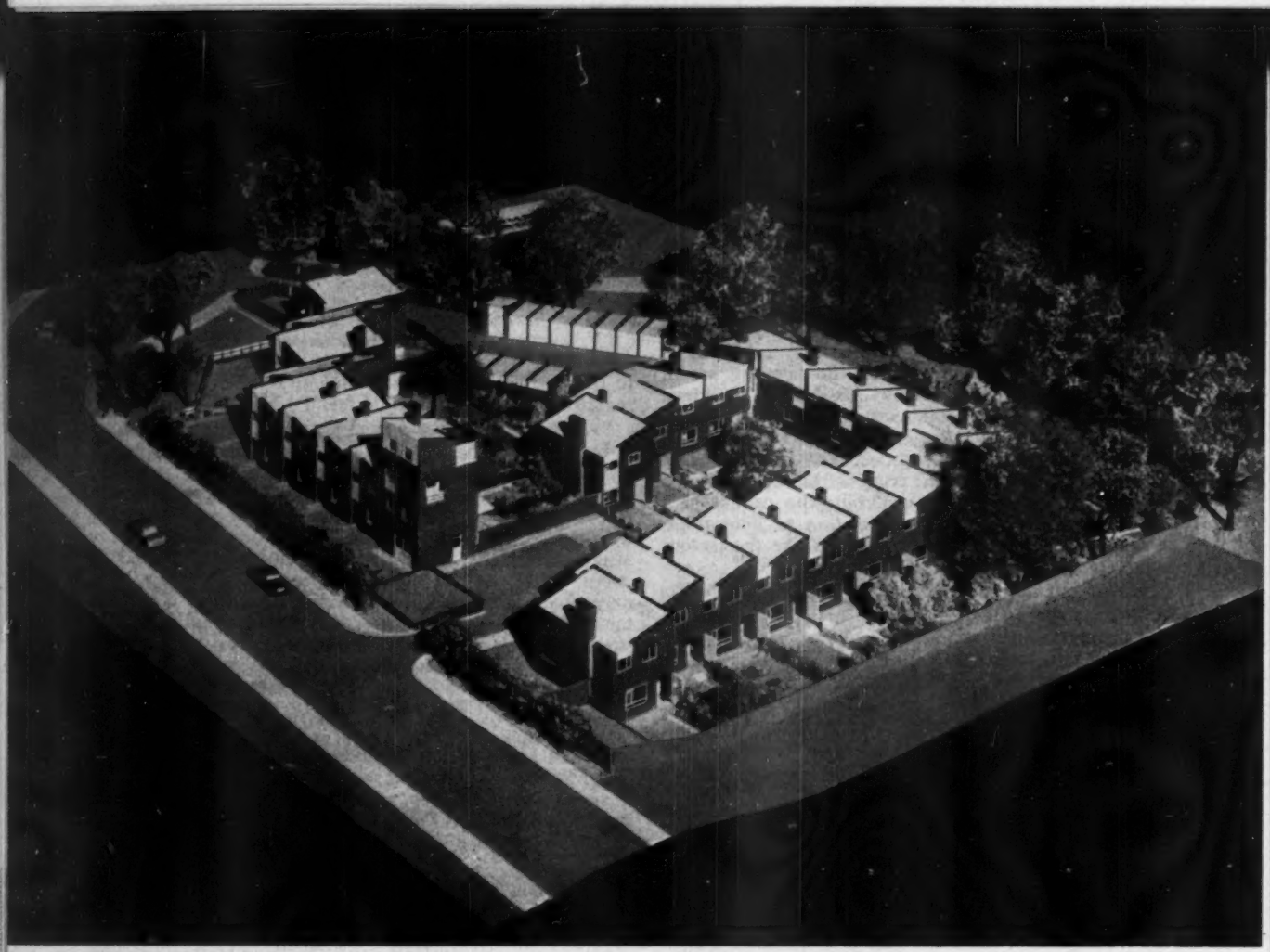
"You may be, John, but now let's get back to where we started. I'm interested in being told what I am going to be married to next year—quantity surveyor, representative or farmer's boy. I feel I'd like to know."

"A quantity surveyor I expect, darling. It's not such a bad job after all, you know. You meet people, travel on tube trains, visit building sites and drink stewed tea. You advise and you help and you are respected. People call you Mister. And you juggle with figures, with pounds, shillings and pence, hundredweights, quarters, pounds, squares, dozens, yards and cubes. You use red ball-point pens. Oh, I know it may sound dull to some people but it's a good steady number, quantity surveying. A safe job, you understand. And what more can you want than that . . . when you have mislaid your courage? Switch on the radio, dear, it's Tony Hancock at half past."

◆ ◆ ◆

Work has begun on this 26-storey office block at Circular Quay, Sydney, Australia. It will be 370 feet high and the country's tallest building when it is completed in 1961. Architects: Graham Thorp, R. Mugdan and G. Marquis, of Peddle, Thorp and Walker, Sydney



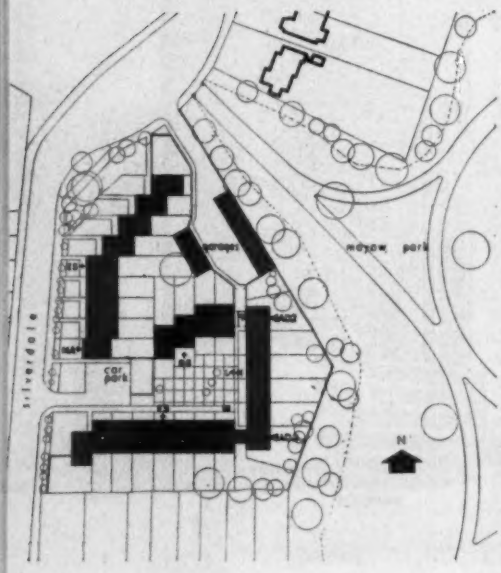


From the south-west

Silverdale forms part of a development which includes the Dacres Road site and comprises four 11-storey point blocks and three four-storey maisonnette blocks. It provides the balance required; has three terraces of two-storey houses and another terrace with a four-storey tier of maisonnettes at one end

HOUSING AT SILVERDALE, LEWISHAM

Architect to the L.C.C.: HUBERT BENNETT
Principal Housing Architect: H. WHITFIELD LEWIS



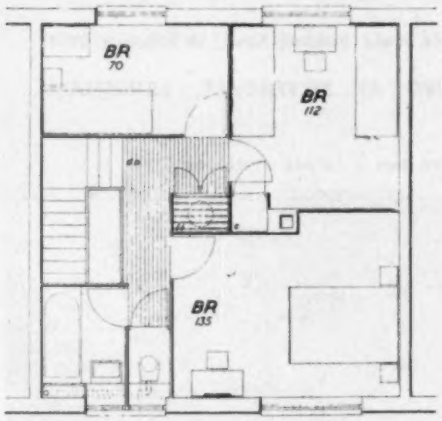
SINCE the war two-storey residential schemes (with some notable exceptions) have lacked vitality and interest, their main characteristics being continuous eaves-lines, "extruded" blocks of arbitrary length, prairie spaces, boredom of scale, constant change of colour and materials and visual disintegration. Contrast this with the small country town or village group. One admires huddle, variety of roof line and block geometry, warm materials and effects of weathering.

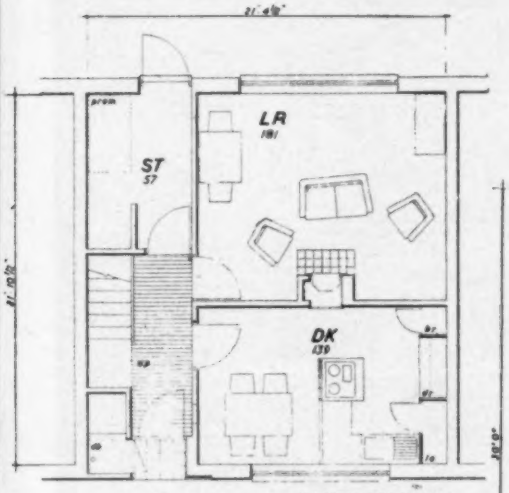
In designing for the needs of today, however, identical characteristics cannot be reproduced and the problem of mechanized and simultaneous construction demands some order and coherence. Even so, lessons can be learnt—opportunities for a varied skyline seized, changes of level underlined, spaces constricted, warm materials capable of enrichment by weathering selected and the value of surprise recognized. From this viewpoint the new development for the Silverdale site was evolved.

The site is to be arranged with a terrace fronting Silverdale. An intimate sunken square will be brick-paved retaining existing fruit trees. A four-storey tower of maisonnettes will form a pivot of the scheme pointing the entrance to the square. Roofs are to be given a varied treatment to emphasize the individual houses and enliven the skyline. A warm brown brick will be used with panels of cedar boarding which will weather to a silver grey.

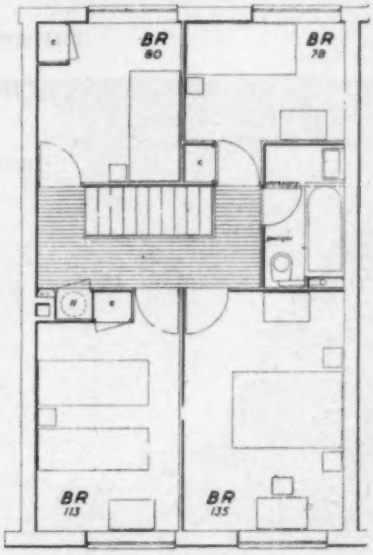
The architectural character and selection of materials should unite the site with Dacres Road development. Point blocks are designed to be of the same character as the lower blocks. This is opposed to the current tendency for the tall blocks to appear as visual intruders within a mixed development.

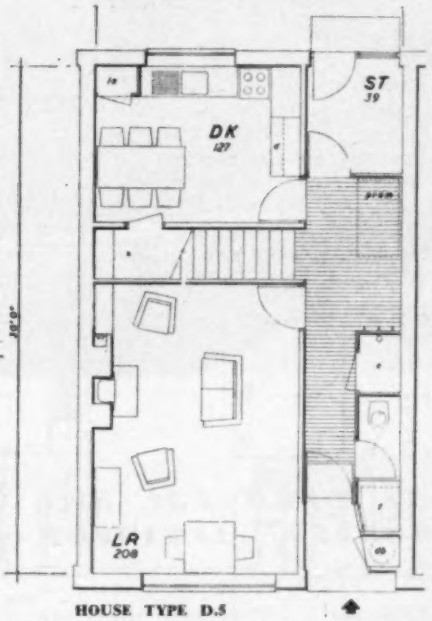
The total cost is estimated at £99,250. Work is expected to start next year.



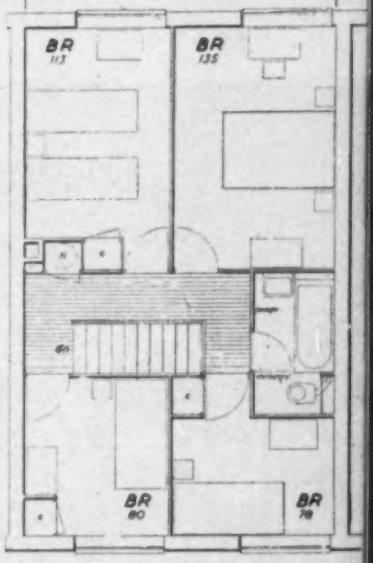


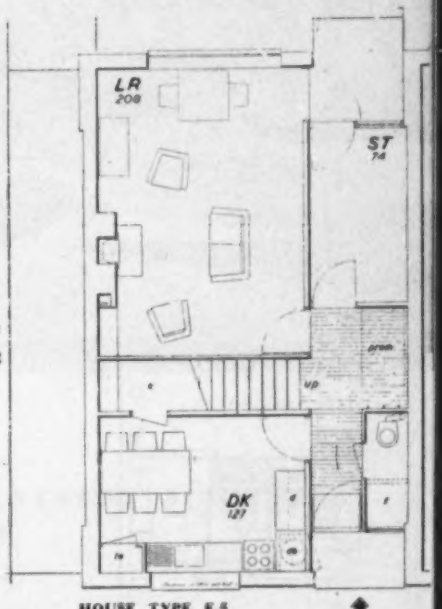
HOUSE TYPE L4N





HOUSE TYPE D.5





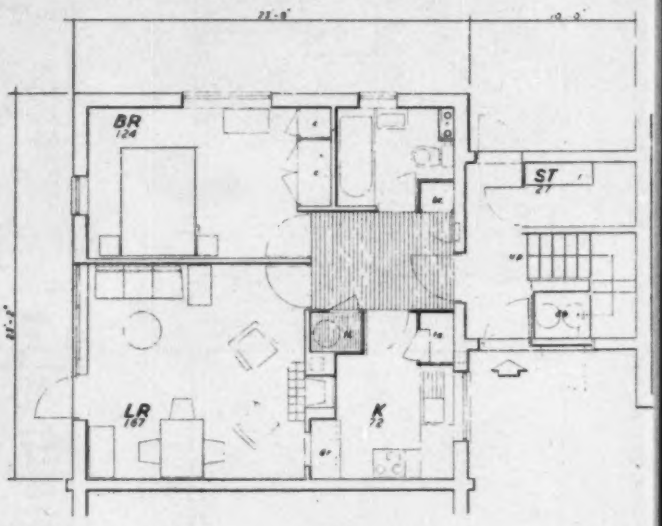
HOUSE TYPE E.5

Plans to house types in the Silverdale scheme are shown above and right, and may be related to key references on the site plan opposite. Other plans appear on page 218. The perspective below shows the sunken square which, in retaining an existing tree pattern, will introduce a feeling of intimacy to the site

HOUSING AT SILVERDALE, LEWISHAM

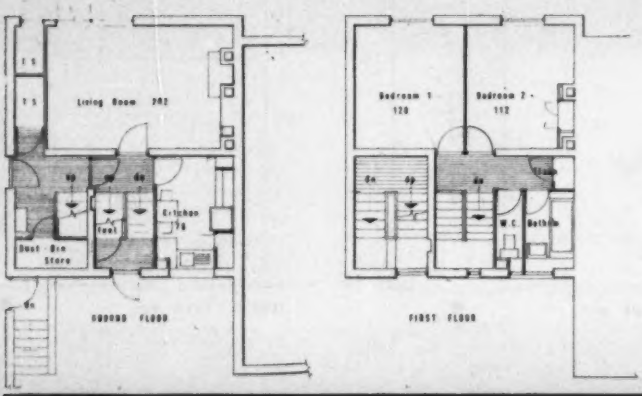
Seen from Silverdale the staggered housing abuts a terrace to give an interesting and varied skyline. A brown brick with silver grey cedar boarding gives contrast in material finish

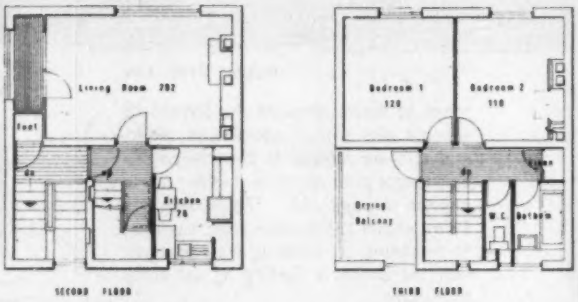
HOUSE—TYPE SAD 2. SCALE: 1 IN=10 FT



Section Architect: H. R. E. KNIGHT

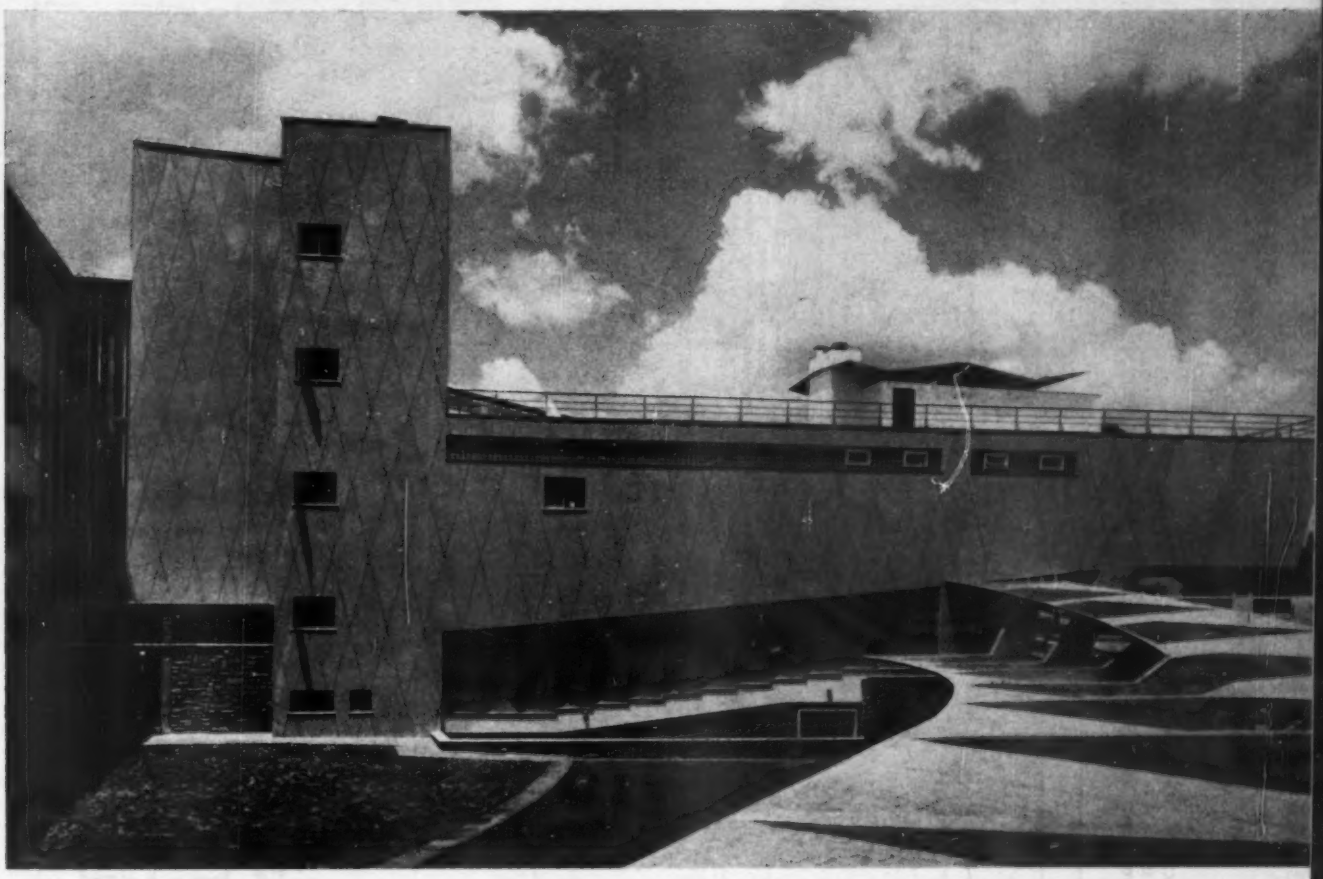
Job Architects: A. J. BOOTH and D. C. STREATFIELD





MAISONNETTES—TYPE MA
SCALE: 1 IN=16 FT

From the north-west



THE AGA KHAN PLATINUM JUBILEE HOSPITAL, NAIROBI

Architect: A. D. CONNELL
Assistant Architects: R. P. MARSHALL and P. M. BROADHEAD

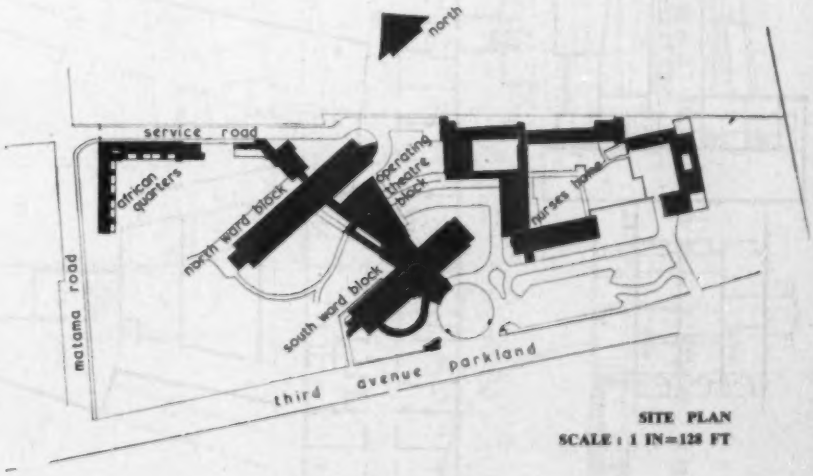
THE hospital is designed as an acute general hospital. Whilst primarily intended for the Ismaili community, it will also cater for all other communities.

The Ismaili sect, of which the East African community is one of the largest, is a particular group of Moslem Indians living throughout the world who acknowledge the Aga Khan as their leader.

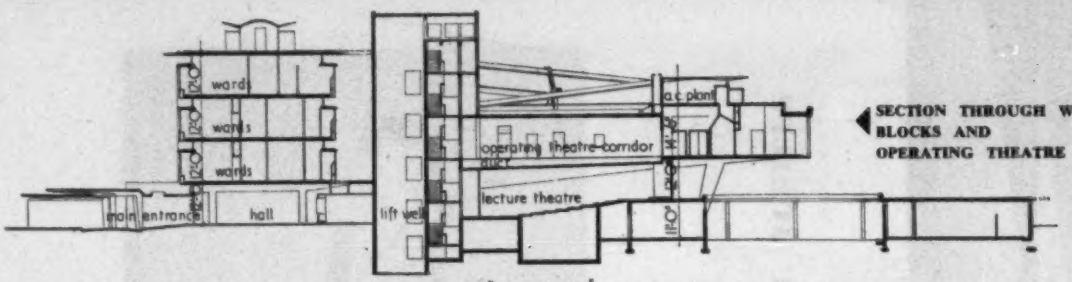
There are quite a number of other hospitals in Nairobi, of which the largest is reserved entirely for Africans. There is also one for Europeans only, and the Hindu Indian community is building one.

Accommodation

Present accommodation, provided under the first-phase of the building, comprises 112 beds, divided into surgical, medical, maternity and children's wards, with an out-patients' department, operating theatres and radiography department. Sterilizing workrooms, kitchens and other basic services are designed to cater for approximately 240 beds, when the north ward block is extended. The main hospital building also contains a large lecture theatre.

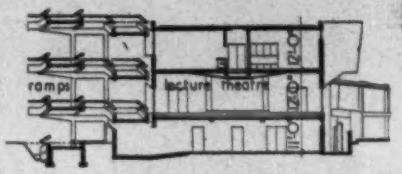


SITE PLAN
SCALE: 1 IN=128 FT



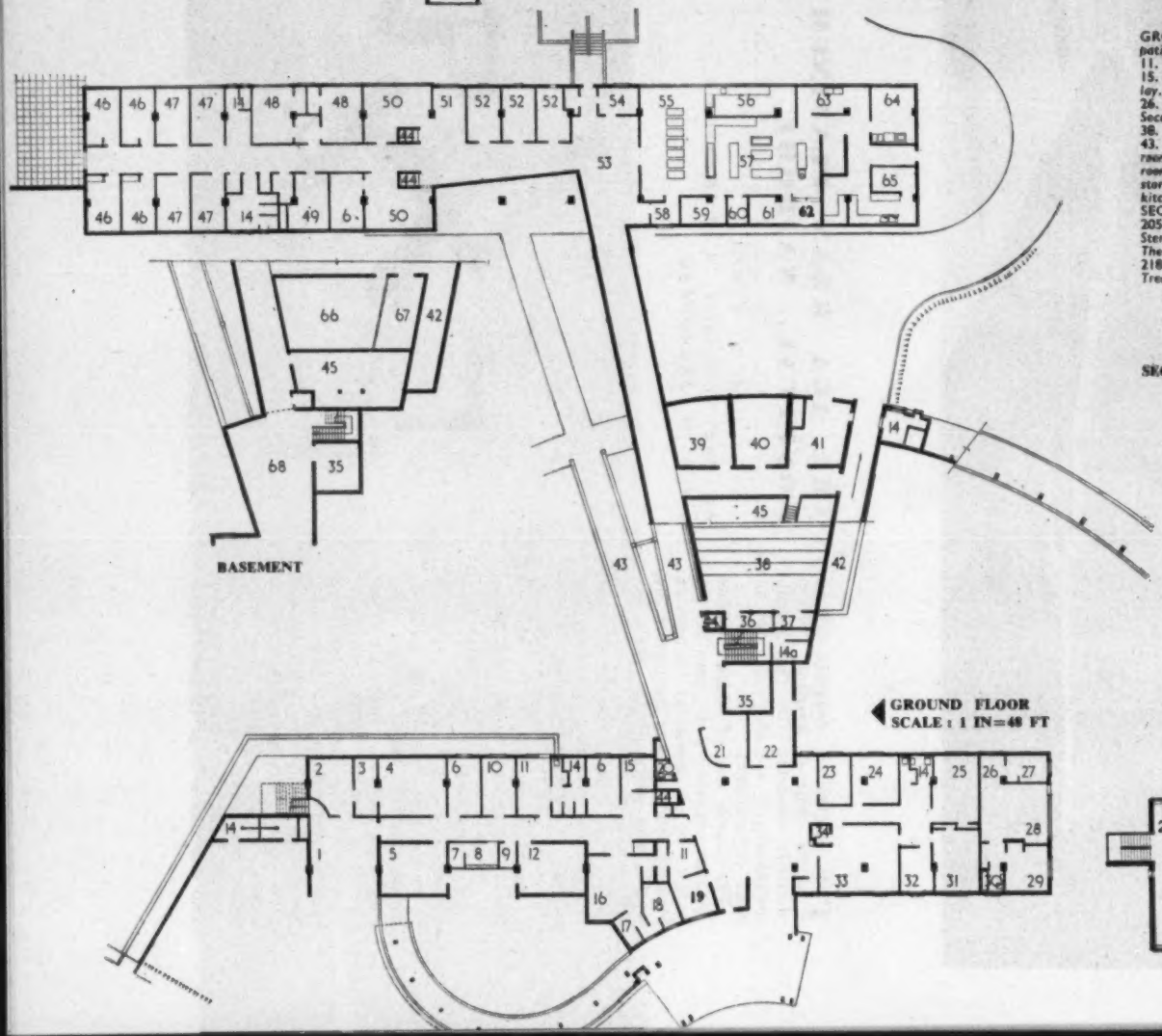
SECTION THROUGH WARD BLOCKS AND OPERATING THEATRE

SECTION THROUGH LECTURE THEATRE AND OPERATING THEATRE FLOORS

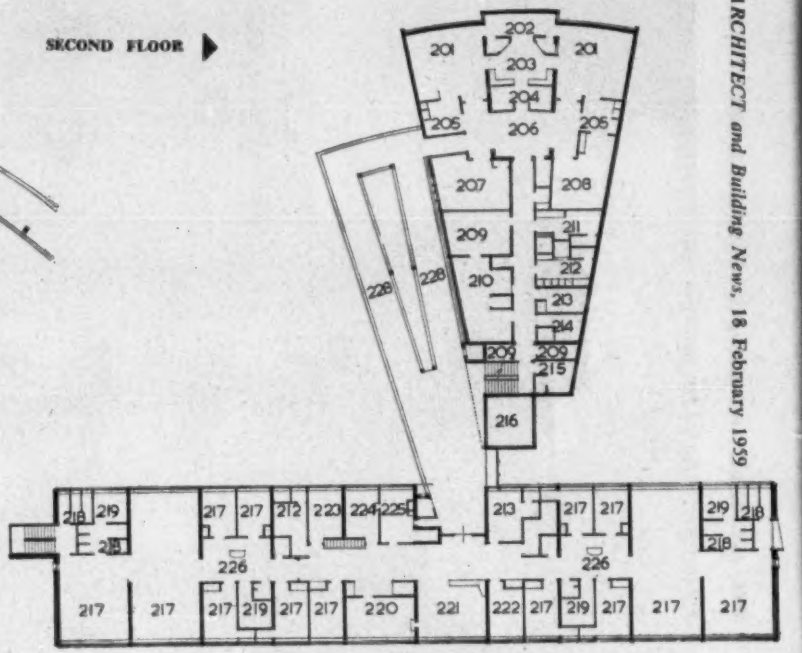


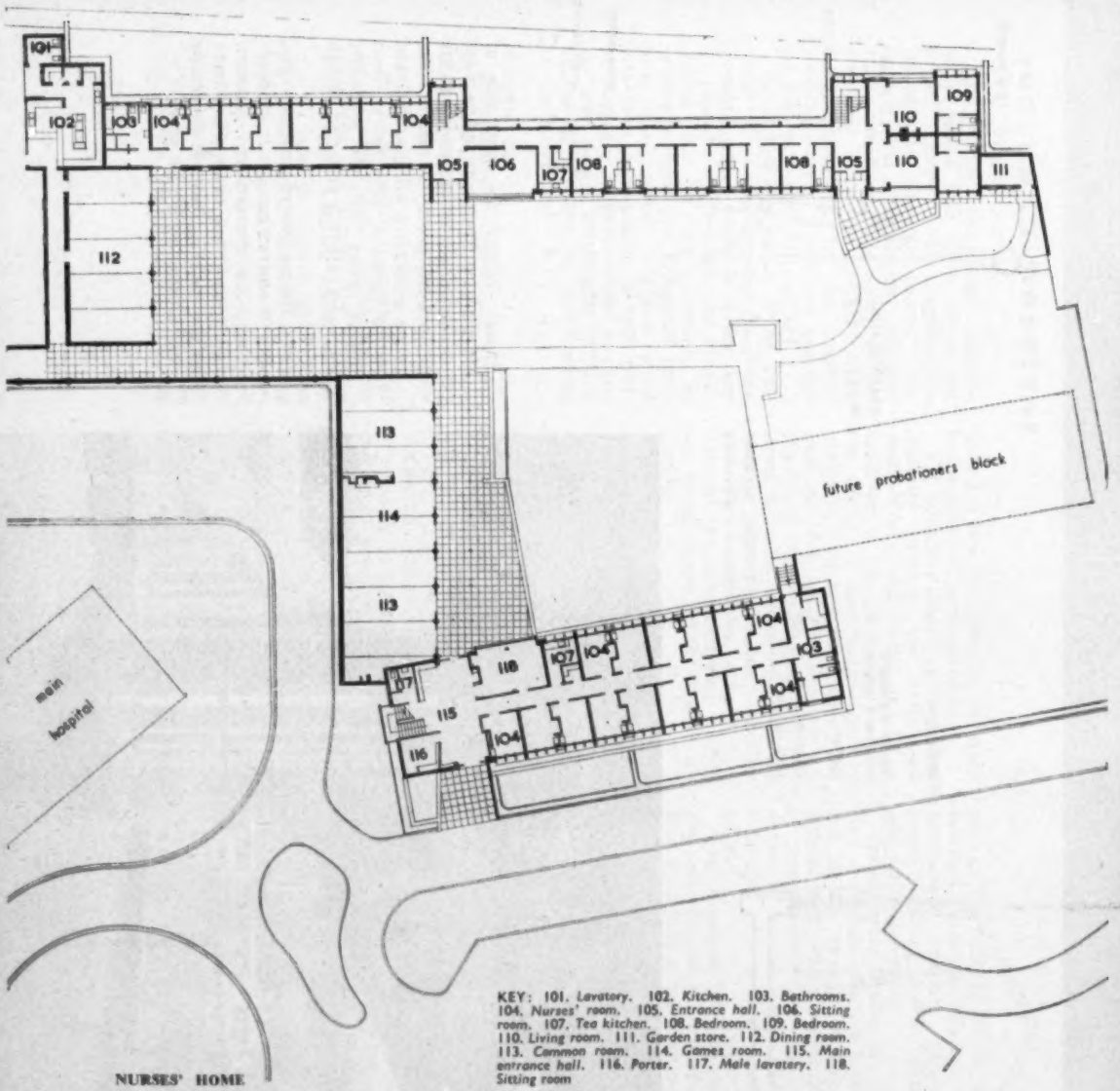
GROUND-FLOOR KEY: 1. Ambulance bay. 2. Casualty reception. 3. Sluice. 4. Surgery. 5. Out-patients' waiting room. 6. Consulting room. 7. File. 8. Reception. 9. Cleaner. 10. Dispensery. 11. A.N. waiting room. 12. Outpatients' waiting room. 13. 14. Lavatory. 14a. African lavatory. 15. M.O.'s office. 16. Radiography room. 17. Control. 18. Dark-room. 19. Viewing room. 20. Visitors' lay. 21. Admittance room. 22. Shop. 23. Doctors' room. 24. Records. 25. Superintendent's room. 26. Hall. 27. Kitchen. 28. Living room. 29. Bedroom. 30. Bathroom. 31. Matron's room 32. Secretary's room. 33. General office. 34. Strong-room. 35. Lift well. 36. Prep. room. 37. Store. 38. Lecture theatre. 39. Clean laundry store. 40. Incinerator room. 41. Autopsy room. 42. Area. 43. Ramp. 44. Hoist. 45. Laundry. 46. Parents' room. 47. Ward. 48. Isolation room. 49. Utility room. 50. Ward kitchen. 51. Milk kitchen. 52. Store. 53. Service entrance hall. 54. Housekeeper's room. 55. Trolley park. 56. Diet kitchen. 57. Servery. 58. Cook's office. 59. Dry-store. 60. Cold-store, milk. 61. Cold-store, meat and fish. 62. Meat and fish preparation. 63. Pot wash. 64. Pastry kitchen. 65. Vegetable store. 66. Boiler room. 67. Workshops. 68. Lift landing

SECOND-FLOOR KEY: 201. Operating theatre. 202. Sluice. 203. Sub-sterilizing. 204. Scrub-up. 205. Anaesthetic room. 206. Opereting theatre lobby. 207. Recovery room. 208. Plaster room. 209. Sterile store. 210. Sterilizing work. 211. Doctors' locker room. 212. Nurses' locker room. 213. Theatre Sister's room. 214. African locker room. 215. African lavatory. 216. Lift well. 217. Ward. 218. Lavatory. 219. Bathroom. 220. Ward kitchen. 221. Day room. 222. Interview room. 223. Treatment room. 224. Clean utility room. 225. Dirty utility room. 226. Nurses' station. 228. Ramp



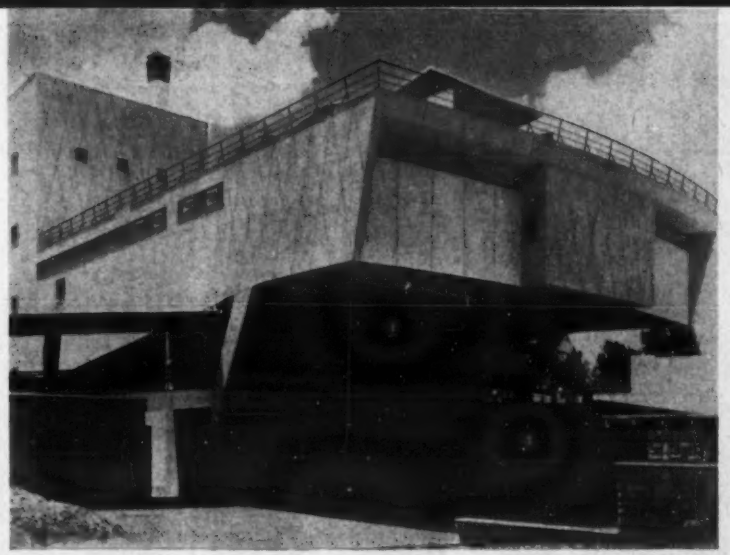
SECOND FLOOR



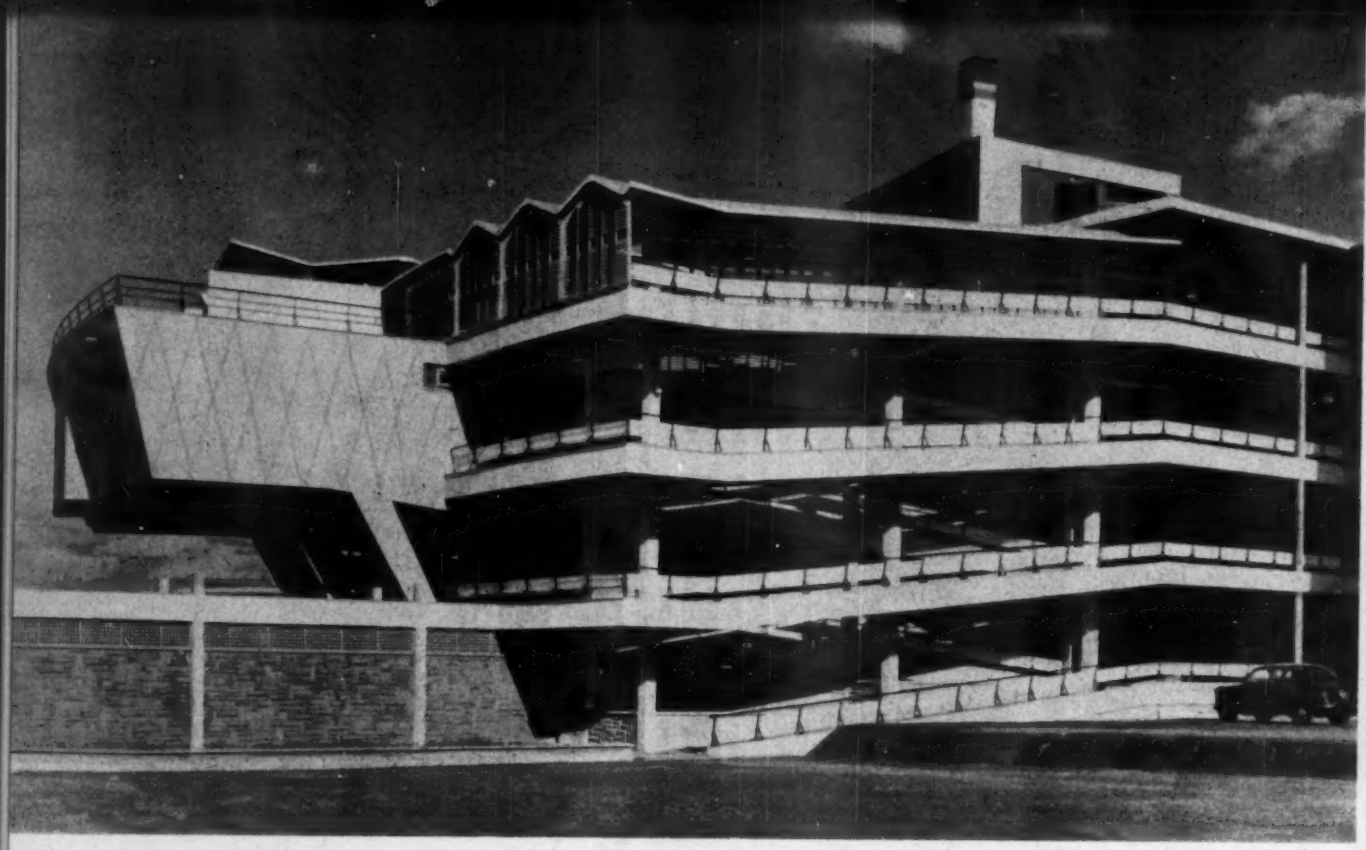


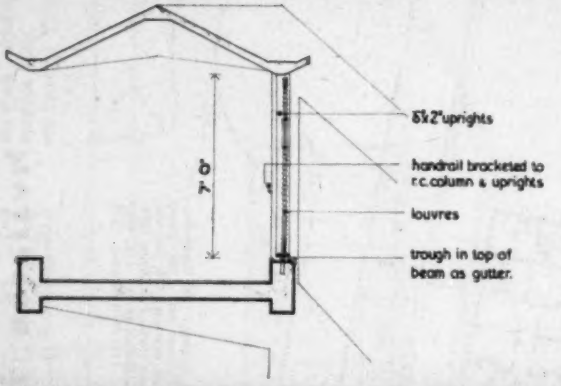
KEY: 101. *Lavatory.* 102. *Kitchen.* 103. *Bathrooms.* 104. *Nurses' room.* 105. *Entrance hall.* 106. *Sitting room.* 107. *Tea kitchen.* 108. *Bedroom.* 109. *Bedroom.* 110. *Living room.* 111. *Garden store.* 112. *Dining room.* 113. *Common room.* 114. *Games room.* 115. *Main entrance hall.* 116. *Porter.* 117. *Male lavatory.* 118. *Sitting room*

AGA KHAN PLATINUM JUBILEE HOSPITAL



Above: the operating theatre suite, cantilevered out over the service yard. It contains two theatres, divided by sterilizing rooms, scrub-up, etc. Below them is the lecture theatre big enough to accommodate the entire hospital staff on special occasions. (It is to be a teaching hospital.) On left is arrival ramp from nurses' quarters. Below: Looking down ramp towards nurses' quarters, with doctors' cars under canopy on right. Extreme right, corner of main ward block with resident M.O.'s flat on ground floor





CANOPY SECTION
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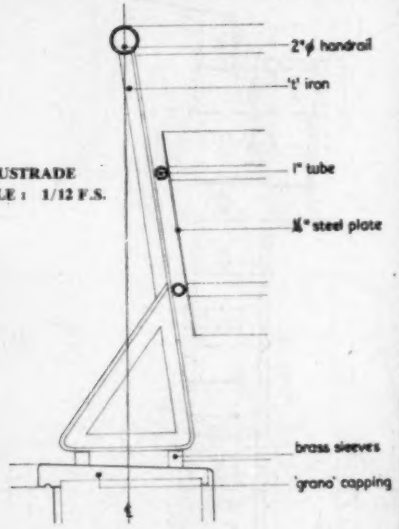
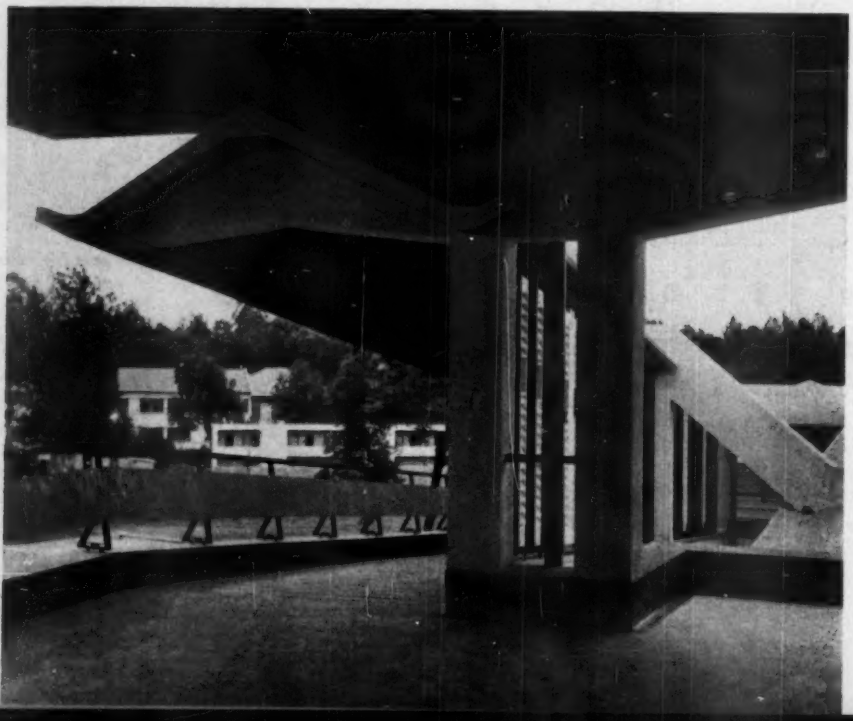
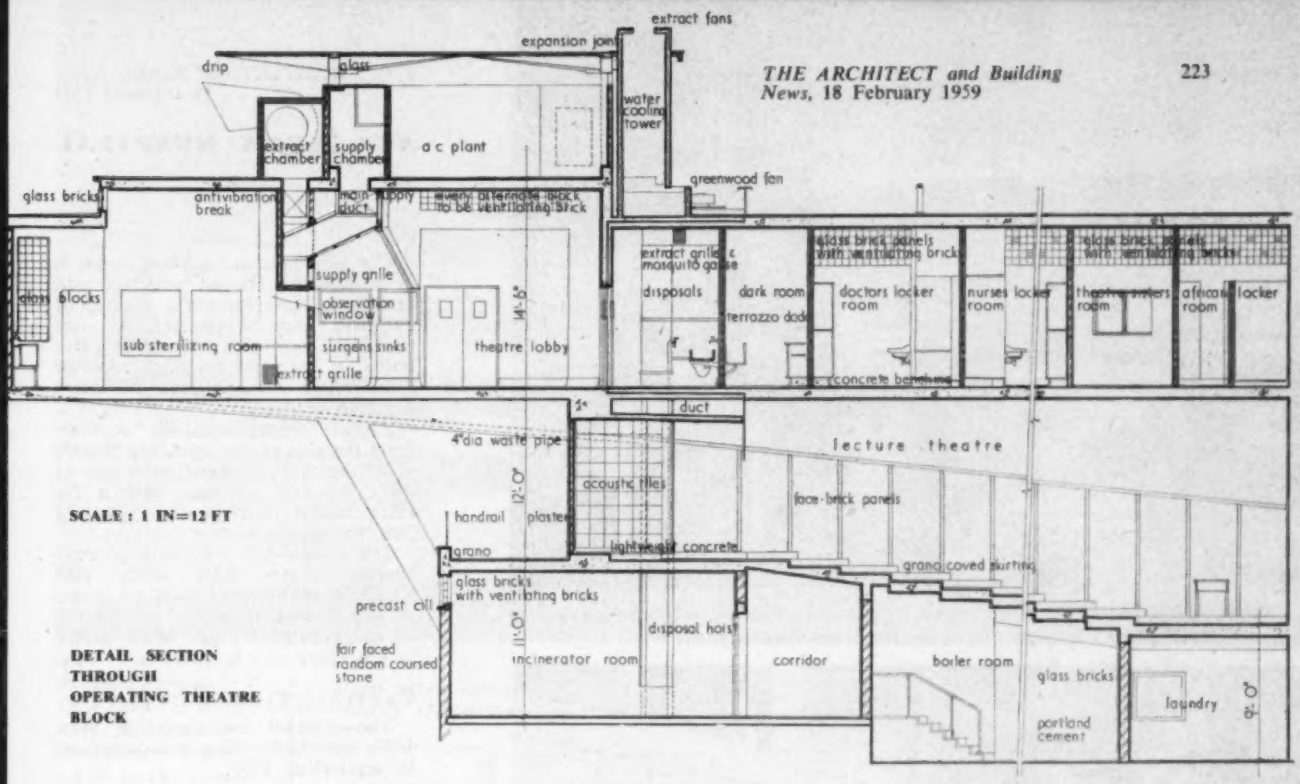


BALUSTRADE
SCALE : 1/12 F.S.



Above: Ramps on west side of theatre wing. Electricity failure is not uncommon, so ramps are for access from ward floors to theatre (the future ward block will also be linked to the ramps at each floor). Rain always comes from the south-east and ramps are fully protected, though open

Left: The top floor of the main ramp, with its concrete canopy. In the background are the servants' quarters, and beyond them an adjoining house outside the site. Detail to the canopy and balustrading is seen above



AGA KHAN HOSPITAL

The nurses' home has separate senior sisters' flats, sisters' rooms and nurses' rooms, with appropriate dining and common rooms. The matron and the hospital administrator are housed separately on the site, and a flat is provided in the hospital building for the resident medical officer. There are quarters on the site for 60 African staff.

No statistical evidence of the incidence of disease amongst the Asian population was available at the time of planning the hospital, and investigation led to the adoption of standards based on European practice. Consequently, the first phase has been arranged in a sufficiently flexible way to allow of the increase of any major department without undue interruption in the working of the hospital.

Planning

Layout of the hospital is governed by three fundamentals: (a) comfort of the patient; (b) comfort of the staff; and (c) minimum circulation distances.

A lower corridor, connecting all service departments, primarily via bed lifts, and supply and disposal units directly with the wards, eliminates all cross circulations and ensures the maximum of comfort for both patients, staff and visitors. Other vertical circulations, in the form of staircases and ramps, supplement these mechanical hoists. The main ramp runs by shallow gradient from the service departments to the top floor and will ultimately be connected to the projected north ward block.

The operating theatre unit is placed centrally between the north and south blocks, and owing to site restrictions it was necessary to hang the whole of the theatre unit in cantilever form over the service yard. East and west walls of this unit are practically window-less, and it is protected from the afternoon sun on the west by the main ramp. Theatres and their ancillaries are air-conditioned, the air-conditioning machinery being housed on the roof of the theatres.

Two parallel ward blocks are most carefully orientated, fractionally east of the north-south axis, to exclude the sun during the heat of the day, and to permit of less sun penetration during the late afternoon.

A ramp from the nurses' home to the first-floor level of the hospital brings the nursing staff to a central point prior to their distribution to the various departments.

Construction

Structure is primarily of vibrated reinforced concrete and load-bearing cross walls, with clay block infill and partition walls. The ward blocks have reinforced concrete trestles at ground-floor level carrying 9in load-bearing stone cross walls at 20ft centres on upper floors. These cross walls are insulated at floor and ceiling level with aluminium/bitumen pads to cut out the transmission of structure-borne noises and vibration through the building. Floors and sun-breakers spanning 20ft are pre-cast prestressed concrete strips with sound-deadening pumice block infill and concrete topping.

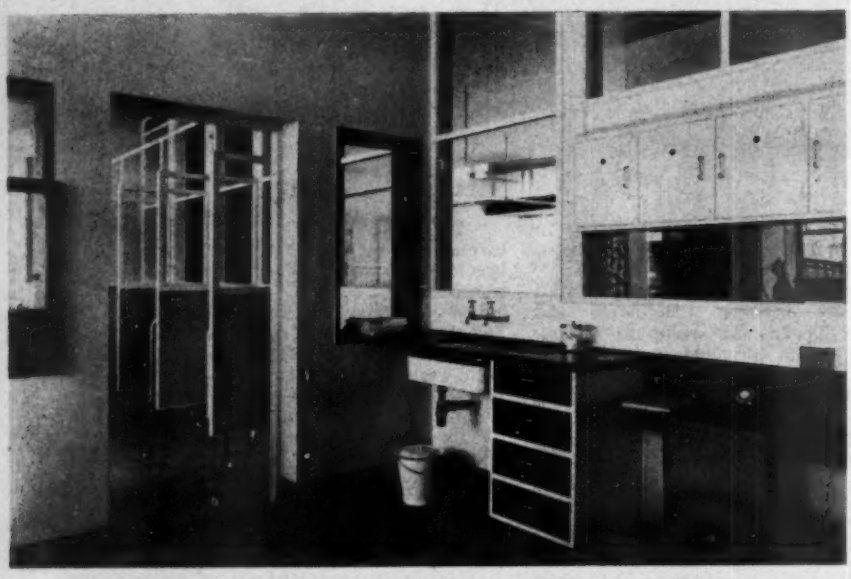
The concrete trestles are taken to rock with mass concrete foundations, but all the exterior walling to the ground floor, which runs entirely free of the columns and the building above, is carried on ground beams supported on concrete-filled auger holes.

The basement is constructed of concrete vibrated straight against the rock face with a metal strip upstand embedded at the junction of floor and wall as a water seal.

A reinforced, concrete-framed tower block of staircase and lift shaft virtually acts in itself as a column for the vierendeel beam formed by the walls, floor and roof of the theatre block corridor spanning 55ft over the centre of the lecture theatre. Outer sides of the lecture theatre are spanned by beams formed by the almost window-less side walls of the operating theatre block. The north ends of these beams are supported by a trestle consisting of a paired vertical and raking column, the beams run over the trestle to form a cantilever of 23ft over the service yard, giving a total cantilevered projection of 38ft. The vierendeel beam is not cantilevered beyond the vertical columns and the centre part of the floor over the service yard is carried by hangers from the splayed tops of the centre pair of raking columns.

AGA KHAN HOSPITAL

Above, one of the public wards. Patients can see out of the windows from their beds. Below, a nurse's station in the maternity unit



Below, a nurse's station. She controls a 16-bed ward unit, 12 beds in one large ward and four private single rooms

The air-conditioning plant room is in a separate framed structure and rests in a joggle formed at the top of the centre pair of columns. Its roof takes the form of a hyperbolic paraboloid, a beamless 2in thick concrete slab folded to gain the necessary depth to span 18ft.

Ramps are structurally separate from the side of the operating theatre block, being cantilevered each side of three pairs of columns with a 2in thick folded concrete slab spanning 28ft, forming a roof at the top.

The nurses' home consists of load-bearing stone cross walls with Kenelement floors all built on beams at ground level supported by a series of concrete-filled auger holes drilled to a suitable rock foundation.

Contract Time

The contract was signed in May, 1956, and the building was completed in September, 1958.

Cost

The building alone cost £380,000, plus a further £70,000 for equipment. At present the number of beds is 112 but the building of the final stage will bring the number up to 240 and the cost up to £600,000.

Site Supervision

A full-time clerk of works was employed throughout the contract and some of the time this job was filled by a qualified architect. This was essential in order to achieve such a high standard of finish with the contractors available. Much of the detail was decided *ad hoc* on the site, and this reduced the number of large-scale drawings as compared with an equivalent job in the U.K.

Quantity Surveyors:
ARMSTRONG & DUNCAN

Structural Engineers:
S. GELEFF & PARTNERS

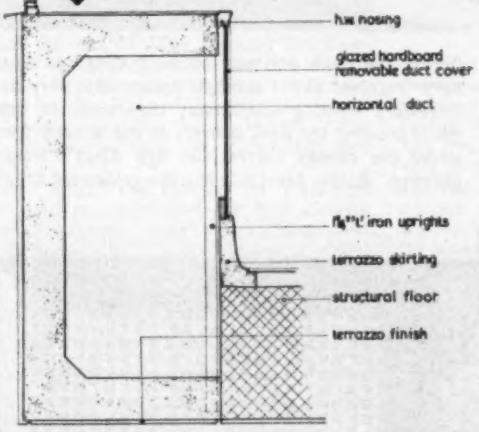
General Contractors:
NARANJAN SINGH BROS.

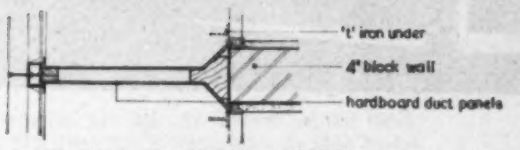
Sub-contractors and suppliers:
Allen & Hanbury's Sterilizers and Medical Equipment: Howse & McGeorge Ltd. *Crittall's Metal Windows and Door Frames:* Dodwell & Co. *Decoration:* Coronation Decorators Ltd. *Electrician:* Thaker Singh & Co. *External Finishes, all Flooring, Terrazzo:* Capitol Terrazzo Works. *Frigidaire Cold Rooms:* Motor Mart & Exchange Ltd. *J. & E. Hall's Air-Conditioning Plant; Leyland Paints & Varnish Co.:* A. Baumann & Co. Ltd. *Lifts:* Otis Elevator Co. Ltd. *Marley Floor Tiles:* Naumann Gipp Ltd. *Naco Louvres:* Equipment Ltd. *Philips X-ray Equipment:* Twentische Overseas Trading Co. Ltd. *Plumbing:* James Brodie & Son Ltd. *Pre-cast Prestressed Concrete Flooring:* Listone Concrete Co. *Swedish Flush Doors; Twyfords Sanitary Fittings:* African Mercantile Co. Ltd. *Williamsons Crestoline Flooring:* Anglo-Baltic Corp. Ltd.

Above, a general view from the north-west. Extreme left is children's ward, which is the ground floor of the proposed second ward block, eventually to be the same size as first

Below, the south facade, main ward block. The ground floor contains entrance hall, administrative offices, resident M.O.'s flat and out-patients' department, radiography unit, casualty reception, etc.

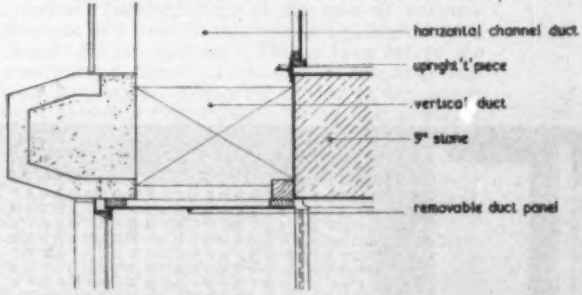
WARD BLOCK DETAILS
TYPICAL HORIZONTAL DUCT





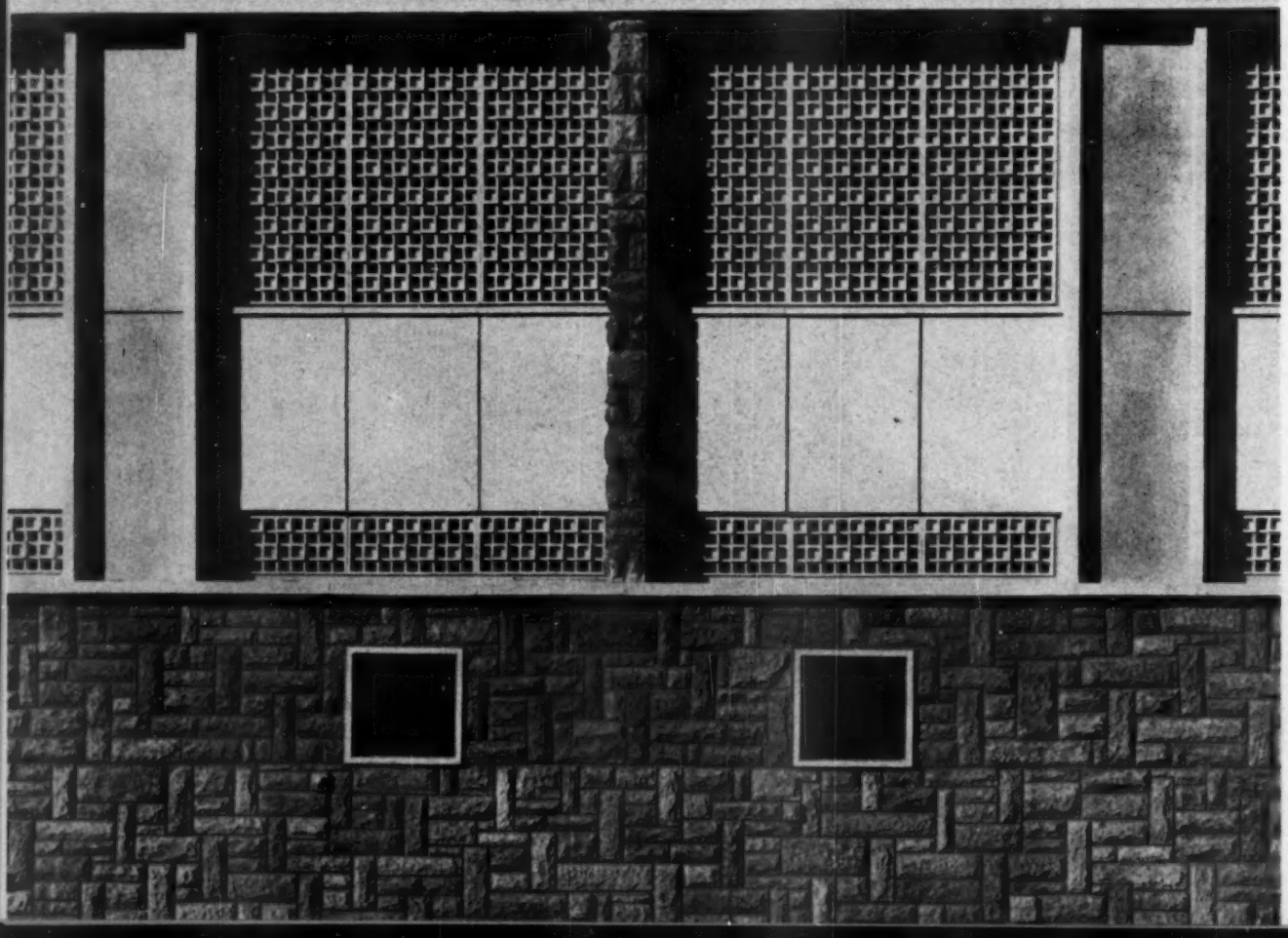
4 IN WALL TO WINDOW MULLION

VERTICAL DUCT. SCALE : 1/12 F.S.



AGA KHAN HOSPITAL

Above, the main entrance showing detail to ward block. This facade never receives direct sunlight except at a very oblique angle. Set back clerestory lighting illuminates the rooms in depth by reflected light, while shading the beds nearest to the window from sky glow. A plaque under the canopy carries the Aga Khan's insignia and inscription of opening. Below, pre-cast concrete grillework to the nurses' quarters



THE TALL BUILDING IN THE TOWN

Points from the paper read before the Town Planning Institute on February 4 by Professor Sir WILLIAM HOLFORD

THE Building Act of 1774, drafted by sculptor, architect, Alderman and Sheriff Sir Robert Taylor and his young collaborator George Dance,[1] became known as the Great Codifying Act because it consolidated previous regulations about construction and height, graded houses into four categories (First Rate to Fourth Rate), each with its code of requirements, and appointed district surveyors. The next century looked at its results and thought them monotonous, and its dimensional restraints tyrannical. It was christened "the Black Act of 1774".

Seventy years later the Metropolitan Building Act revised the relationship between the heights of buildings and the widths of streets and required open space only about dwelling houses. In 1852 the first dimensional height restriction of 90ft was imposed in London.[2] It does not seem to have prevented Queen Anne's Mansions, so disliked by Queen Victoria, from rising to 180ft in 1888.

By 1890 the new London County Council had relaxed the sheer height restriction, to allow two additional floors in the roof (Whitehall Court and the partly disappearing Imperial Institute were buildings that took advantage of this). But the Act of 1894 reduced the sheer height to 80ft because of limitations of the fire escape ladders. The so-called "architectural features" that rose above the 100ft level on the Port of London Authority Building, No. 55 Broadway, and the Senate House of the University were allowed to be used for decorative and storage purposes only.

Meanwhile, in New York, the Heights of Buildings Commission of 1913 had recommended the first Zoning resolution which was adopted three years later, and resulted in the establishment of "height districts", and the imposition of the famous "Cake Mould" envelope which derived from a combination of ratios set out in the Zoning and Multiple Dwellings Law. On large sites, favourably situated, part of the development could rise to an infinite height. This form of height zoning lasted substantially until 1947 when it was refined, and a floor area ratio adopted.

London was more cautious. Both City and County incorporated the Height and Cover provisions of the Model Clauses under the 1932 Town and Country Planning Act; and in 1937 the Dean and Chapter of St. Paul's Cathedral agreed with the City Corporation a very detailed Grid Plan devised by Mr. Godfrey Allen to protect views of the dome from a number of well-known viewpoints.

The London Building Act was relaxed slightly in 1952 to allow the 100ft height either sheer or overall; but by then it was becoming fairly common to apply for a waiver subject to structural safety and to adequate provision for fire-fighting—both matters being at the Council's discretion. There was and still is a right possessed by adjoining owners within a radius of 100yd, to appeal under S.51 of the Act if they consider that their light and air would be affected by a building to be constructed to a height greater than 100ft.

More recently the London County Council has outlined its policy in regard to tall buildings, informing developers of the questions they will ask and the points that would count in its favour when a waiver from the height restriction is applied for. The later policy statement of July 1957, called *A Plan to Combat Congestion in Central London*, revised the Plot Ratio Zones but said nothing about height. Here also, subject to some statutory and some administrative safeguards, the sky is now the limit.

Will another generation, looking back on the first batch of high-rise buildings in London, call these "the White Acts of the 1950's"?

The question is apposite at the present time, and not only for London. In many cities public and professional opinion is sharply divided. On the one hand is a prejudice against high buildings as such, which is partly resistance to change of any sort, and partly the result of unfavourable comparisons with the more decorative towers and spires and *campanili* of the past. On the other hand, there is strong pressure for driving upwards, in spite of increased building costs, in spite of criticism, and in spite of the undoubted investment risks attached to it.

Motives are mixed. Some are scientific and practical, and represent the logical solution to problems of daylighting and coverage, standardized floors and the economic use of high-speed lifts. Some are connected with prestige, or (to give it a less lofty title) publicity, advertisement or sheer exhibitionism. There is also something more deep-seated, and more universal—that ancient and ageless ambition of man, to *aspire* in his architecture as in other feats of skill and speed, or in the climbing of mountains.

Historical Precedents

These two attitudes are already defined in the Bible. It seems clear that man has always built as high as his building knowledge would allow. In the "Oldest Town in the World", which is the title Miss Kathleen Kenyon has bestowed on Jericho,[3] there is the base of a tower 40ft in diameter and even in its remains 30ft high, which she has dated at least 6800 B.C. This is long before the earliest pyramids of Egypt. How high it originally was we can only conjecture. The great mound at Ur, which Sir Leonard Woolley first thought to be the home of Abraham, and which Abraham must certainly have known, originally carried a tower which was restored after many hundreds of years of dilapidation, in the sixth century B.C. and it must have been something like 200ft in height. The famous tower of Babel, with its seven squares and seven stages, was nearer 300ft. The architect's tablets, found on the site of Babylon, state that its length and breadth and height were equal, although each terrace had different measurements. Now the Statue of Liberty at New York Harbour is 292ft high and the Shell Building on the South Bank of the Thames is designed for 330ft. So London may be said to be just reaching Babel-height, whereas New York is long past it.

With the great religious buildings of the Middle Ages in Europe, and equally with the Indo-Aryan temples of the eleventh and twelfth centuries, such as Gujarat,[4] a new element enters tower design: it is height combined with tracery, which is a reflection of the awe, the pleasure, and the craft that men found in structures which had an intricate as well as an aspiring shape. We all have our favourites—the Bell Harry Tower at Canterbury, Salisbury with its great central spire, Lichfield with three. One of the most remarkable must have been the spire of the tower of Old St. Paul's, as it appears on the Common Seal of the City of London made in A.D. 1224.[5] It is worth mentioning that the second spire built in 1314 was itself 204ft high, making the top of the building about 450ft above ground—80ft higher than the cross on Wren's cathedral. "There is no doubt", writes Geoffrey Webb, "that in carrying on the general intentions of their predecessors and improving on them, the fourteenth-century designers were moved by an aesthetic motive, the desire to pull together the complicated elaboration of masses which often formed their legacy".[6]

Medieval buildings like Old St. Paul's were, in fact, prodigious; but even when they were not the artists and chroniclers of the time made them seem so, in contrast

THE TALL BUILDING

to the huddle of secular buildings round about. Collections of old town maps and views, such as Braun & Hohenberg, deliberately exaggerate the height and mass of churches, towers and walls, and present a skyline which is itself like a musical phrase. Where the town had a natural hill as base, like Stirling or Edinburgh or Mont St. Michel on the Manche, the tall buildings are used to give added point to the topography.

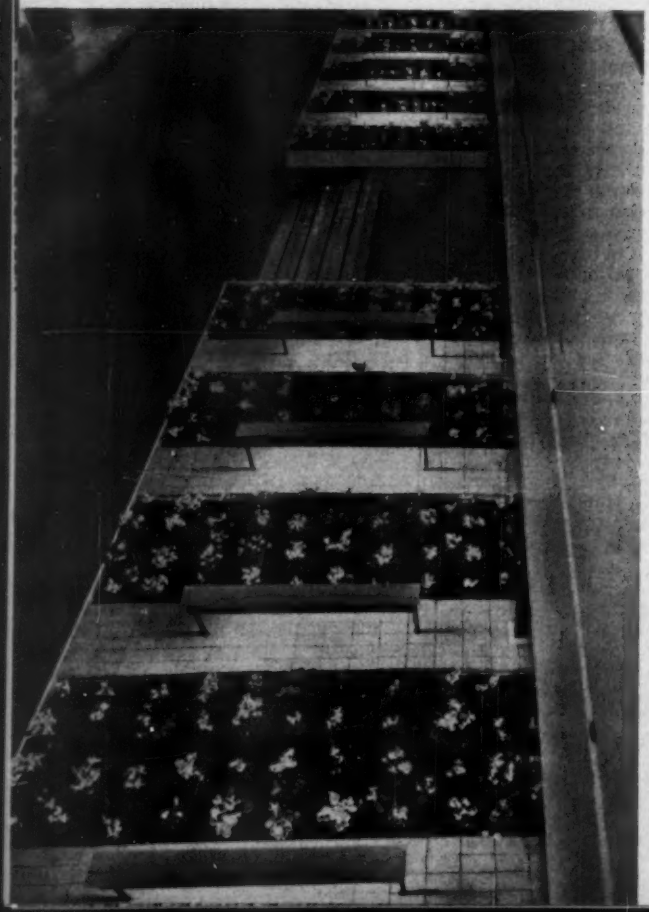
Quite different—being purely defensive and retributive in character—were the dense clusters of towers in some of the European towns and principalities. San Gimignano is often quoted as a prototype of the skyscrapers of New York. Certainly these towers seem to have been as uncontrolled and incidental as those erected before the first New York zoning ordinance. In Bologna, which was a greater city, the Torre Asinelli stands 320ft high, in plain brickwork, and leans 4ft; the neighbouring Torre Garisenda, built competitively the following year (A.D. 1110) is 10ft out of perpendicular. These are early examples of gang warfare in building, and are not without their lessons for Westminster and the City today.

The Steeples

There might have been no direct successors in Britain to the gothic towers and spires, had it not been for Wren's steeples. From his first, St. Mary-le-Bow in Cheapside (235ft high and now temporarily dismantled for repairs), which is one of the most sculpturesque pieces of architecture in London, to St. Vedast's, in Foster Lane, which is his most architectural piece of sculpture, there is a wonderfully inventive range of decorative shapes. They give vertical emphasis to the bodies of their churches, and they provide—apart from the bells—no accommodation whatsoever. The rebuilding of the churches was itself an act of piety and decorum; so the addition of grace, by means of Wren's imagination and the wish of the parish councils, was in the spirit of the undertaking. This is an important point to note, because it is very rare today. The skeleton *campanili* of Mr. Basil Spence's modern churches in Coventry are but faint echoes of it; they are a utilitarian version of the periwig and brocade of the late seventeenth century.

Then, in 1759, was coined that cheap substitute word "silhouette". Etienne de Silhouette was the French Controller of Finance who, in the credit squeeze of the period, invited the richer citizens to send their jewellery to the Treasury, to wear marcasite in place of diamonds, and instead of portraits in oil to commission inexpensive black outlines or shadow pictures. The word silhouette was soon applied to other outlines, including those of buildings seen against the sky; and you will see that the very essence of the silhouette is that it should be economical. It is therefore an appropriate term to describe many of our contemporary urban skylines.

But the nineteenth century saw an even more fantastic flowering in the air. The Victoria and Clock Towers of the Houses of Parliament (340 and 320ft respectively), the Imperial Institute, the Albert Memorial, the towers of the Crystal Palace, and the extraordinary roofs of St. Pancras Hotel are typical examples in London. Paris produced the greatest of the mechanical skyscrapers, the Eiffel Tower (which still overtops our own 700ft high television mast on Sydenham Hill). I note from the *Manchester Guardian* that when the new telecommunications apparatus was recently installed, like a bonnet, on the Eiffel Tower, raising its height from 964 to 1,009ft,



THE FURNITURE EXHIBITION
NEW ROOMS FOR OLD

Architect: MISHA BLACK
Associate Architect: JOHN BRUCKLAND
Interior Designers: ELIZABETH HENDERSON and JO PATTRICK

Two photos are shown, left and opposite, of the centre-piece, "New Rooms for Old", which provided an interesting feature at the Furniture Exhibition. The theme is "The Transformation Scene". A viewing deck is raised 12ft from floor level. From this deck visitors see, first, a series of living rooms furnished in a way typical of most homes in Great Britain—cosy, shabby and cluttered. The stage in which these rooms are constructed is then masked by a screen which descends in front of it while the whole stage elevates to disclose a second series of rooms which show what can be achieved in exactly the same rooms by decoration and furnishing. A similar sequence dealing with bedrooms is displayed on the opposite side of the viewing platform.

On the lower deck of the central feature a carpeted visitors' lounge is provided and may be seen in the illustrations. This is surrounded by flower beds giving a total planted area of 1,272 sq ft. The plants throughout are white azaleas which are contrasted with light grey brick areas and illuminated by low-level fluorescent lighting.

an American business visitor commented that "it looked like the Empire State Building after taxes".[7]

The first pre-war years of the present century saw almost the last examples of towers and cupolas which might justifiably be called "architectural features". After that, building accommodation itself formed the towers and the high slabs; and occasionally the vertical features became symbolic, like radio masts; for example, the Skylon on the South Bank during the Festival of Britain. The contrast between this and the massive tower of the Port of London Authority's building in Trinity Square (1912-1922) is so extreme as to make the term "decorative vertical feature" seem almost meaningless.

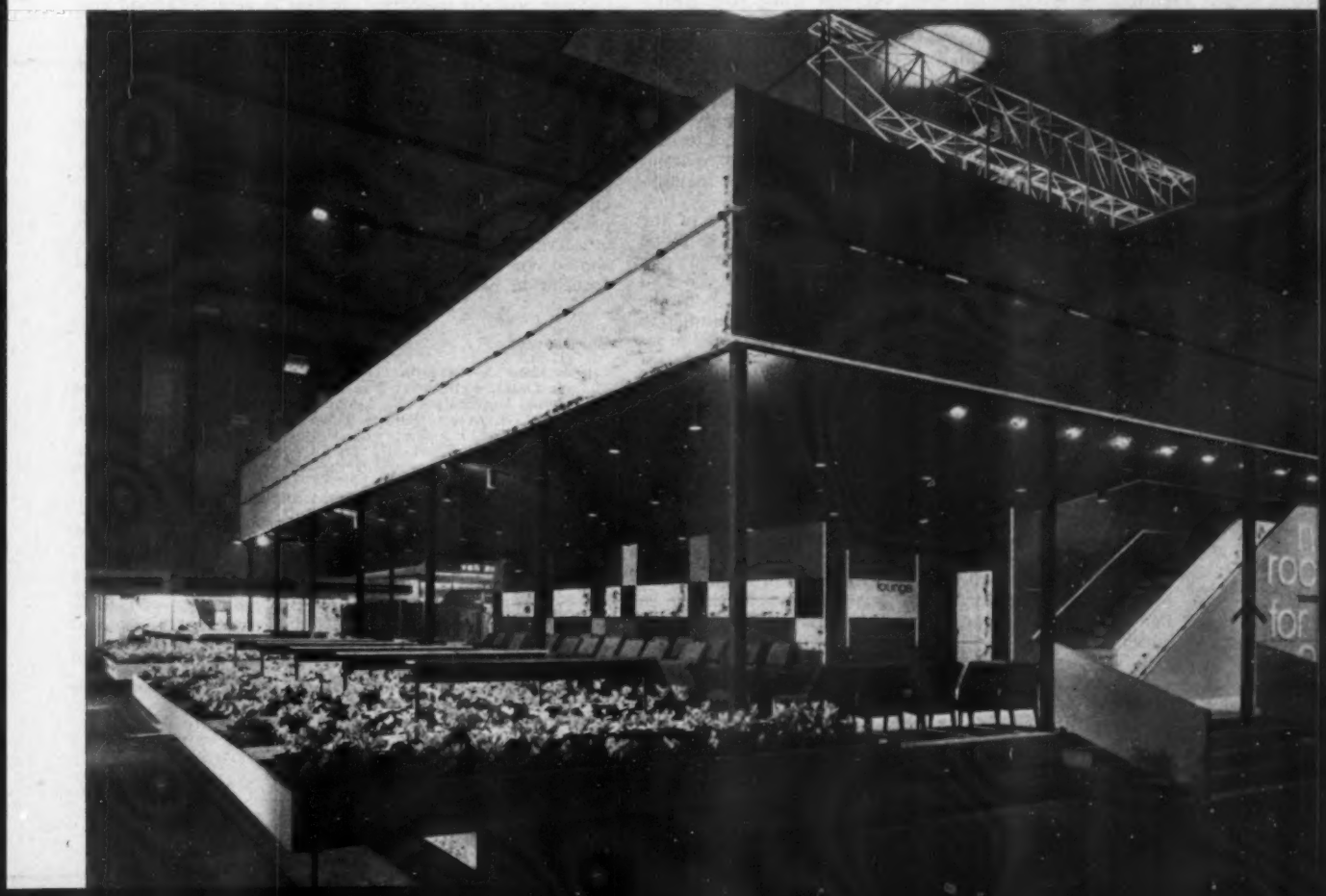
Architectural Accountancy

The most fundamental change, however, was not one of fashion but of building economics. The urge to build high remained, but the bulk produced by a tall building must henceforward be useful bulk. Accommodation became more important than architecture, and so did accountancy. Cost planning and comparisons per cubic foot made nonsense of cupolas and bell-towers, which produced no floor space to speak of, and simply increased the average cost per square foot. It is, in fact, more expensive to build high—and to a greater extent is this so in Britain than in the U.S.A. Nevertheless, building owners wanted high buildings for prestige reasons; architects wanted them for æsthetic reasons; and improved standards of lighting, heating, ventilation and space very often dictated them for practical reasons. So expensive high-rise buildings were put up, but they were made to look economical. The tall slabs and the office towers began to appear without cornices, roofs, or sky-line tracery of any sort. Their square tops usually carried some "top hamper" (as it came to be called), in the shape of water tanks, television aerials, lift overruns and vents of various kinds; but these were assumed to be invisible above the parapet line. Artists complained that such buildings had no silhouette. But in the strict sense of the term this is precisely what they had achieved—a plain economical substitute for the richness and intricacy that had once been so sought after.

I think this phase of the functional utilitarian skyscraper was inevitable; it may even have been necessary. One phase had ended with the attempt to prolong the classical orders on the face of a building over more than three or four storeys. Another had ended with the attenuation of the vertical features of Gothic structure, and the elimination of all others that gave unity and purpose to the great medieval buildings. Yet a third phase had ended with the Empire State Building, which, having established its supremacy as the world's tallest, was found to be not a sound strain for breeding purposes. (The fact that Frank Lloyd Wright has since designed a skyscraper a mile high does not invalidate this general conclusion; it is the normal Wrightian exception to every rule.) So the box and the bookcase and the filing cabinet became the norm, and the international character of this development was symbolized by the United Nations building in New York.

This is a 39-storey building with intermediate floors entirely filled with services, and with an aluminium grille to conceal equipment in the roof. It was of the greatest interest when it was built in 1950; it is still impressive, and it will always have beauty in certain lights and from certain viewpoints. But it did little for the skyline of Manhattan, and it set an unfortunate precedent. Little U.N. buildings sprang up everywhere, poorer in proportion and finish and set less spaciously in their surroundings; so that by the operation of Gresham's Law, the currency was debased. My colleague at University College, Professor Gombrich, put this point extremely well by recalling "Ali Baba and the Forty Thieves":

"The robber marked one door he wanted to remember with chalk. His fair opponent took chalk and repeated the sign on all other doors, thus destroying the meaning of the symbol without touching it. You will understand",



THE TALL BUILDING

he went on, "why Picasso said that his imitators made him sick."

As an American writer said:[1] "We are forced now to consider how buildings will wear through a generation or more, and whether they are likely to grow obsolete visually even more rapidly than they must do physically."

This is clearly a considerable danger, so far as our towns are concerned; and it is made more serious by the higher cost of services and plant relative to the shell of the building. The really permanent buildings in a town are made up of those we love and those we cannot afford to move. In London, St. Paul's is an example of the one, and Faraday House—the international telephone exchange—is an example of the other. In the case of St. Paul's, the shell itself is beautiful, and the mechanical services and equipment are unimportant. In Faraday House it is just the reverse. The tall, or even the conspicuous building, which is really a camouflaged machine but—unlike most machines—not readily scrapped and replaced, is likely to remain a blot on the townscape.

The Most Recent Phase

Fortunately, one of the good results of the functional tradition has also become evident in recent years—the emphasis on quality. This applies not only to materials and finishes, and what might be called the craftsmanship of the machine, but also to the space around buildings, their settings and their public furniture. Two recent office buildings in New York, facing each other across Park Avenue, have quality in all these respects. The Lever and the Seagram Buildings are both tall structures, but not excessively so. They are sumptuously finished and meticulously designed, the former by Gordon Bunschaft, of Skidmore, Owings and Merrill, the latter—almost entirely in bronze—by Mies van der Rohe (this year's Gold Medallist of the R.I.B.A.) and Philip Johnson. And both demonstrate what Sir Edwin Lutyens called ". . . that waste of space that unwittingly creates that most valuable asset, a gain of space".[9] The ordinary citizen can appreciate this gain of space as he walks along the pavements of the Manhattan gridiron and suddenly finds a set-back, an open ground floor, fountain pools, a terrace or a garden. And that is why these buildings, without a poster or a word of lettering on them, are such magnificent advertisements.

These are some of the possibilities and dangers of the tall building. I am quite convinced that it will continue to be sought after by architects and clients alike, despite cost, despite difficulty, despite Section 51 of the London Building Act;[10] and despite controls of bulk such as the Plot Ratio. No weight of prejudice is heavy enough to keep them down, except in a few carefully regulated areas where low or medium heights prevail among a group of historic buildings, and the dominant element in the group is already established. So I shall end by submitting for discussion a few comments on the effect of tall buildings on the town.

1. Absolute height does not seem to be a criterion in itself; it has to be read in conjunction with thickness and depth, the form and tone of the cladding materials, translucence and opacity, the degree of vertical emphasis, and the proportion and composition of its subsidiary and surrounding masses.

The slim and unbulky appearance of a tall building may sometimes be accentuated by *increasing* its height, if by that means its proportions are bettered, rather than by cutting it down.

2. The importance of the *neutrality* of the average tall commercial building, or a residential tower, in its setting, is seldom appreciated. Because a building is tall it need not seek to be dominant in other ways. This was a point which I tried successfully to argue for the tall (230ft) block on Newgate Street about 200yd north-west of the dome of St. Paul's. The design was for a slim, thin building, oriented at right-angles to the forecourt. I wanted people in Newgate Street to look past the building to discover the magnificent outline of the western towers of the cathedral, seen against the light, and not to look at this office block as a focus of attention in itself. Its broad faces were in any case masked to a great extent by neighbouring bulky buildings and the lie of the land.

3. We are all getting bored with the United Nations formula: the secretariat slab or filing cabinet, flanked by assembly hall, council chamber or auditorium, in intimate but not very significant relation. That is why in the International Competition for the City Hall and Square in Toronto, last year, over 500 competitors from all over the world tried out every possible combination of forms in the hope of achieving unity and a fresh architectural attack. The most common solution was a rich, excitingly detailed and moderately *low* building, set against the chaos of unregulated commercial development rising all round the square. The winner, however, did find a new formula, although an expensive and non-functional one: he split his tall secretariat into two curved blocks and put the council chamber, like a poised egg on a podium, in the centre of them. It is a remarkable and original design, and is unlikely to set a fashion that can easily be followed.

4. The *location* of isolated tall buildings is a subject in itself. Arthur Ling wrote a paper on this topic in 1955, in relation to the development plan of London; and the L.C.C.'s *Memorandum on High Buildings* in London was made generally known the following year. It discussed the landscape, civic and architectural value of the higher building to mark social and municipal centres, peak traffic points such as the railway stations,[11] gateways to London, and significant points on the perimeter of the central area such as Hyde Park Corner. It also defined the sort of questions which a planning authority should ask before consenting to a waiver under the London Building Acts, and the conditions which it ought to impose. The most obvious conclusion which this memorandum brought to my mind was that the tall building is just one, visually important element in neighbourhood and town plans and can only be successful when it is thoughtfully considered as part of a planned development. Individually, however, every design has to be considered on its merits: there are no unbreakable rules.

5. Finally, there is the question of presentation. Lord Bridges[12] recently remarked that there ought to be an addendum to the Tenth Commandment: "Thou shalt not wreck thy neighbour's skyline, nor his cupola, nor his dome, nor anything that is his—or the public's—delight." Of all historic structures, towers and spires are the most practicable, and in some ways the most necessary, to preserve. From now on, no interesting tower or steeple should be destroyed—not even that of the Imperial Institute in Kensington.

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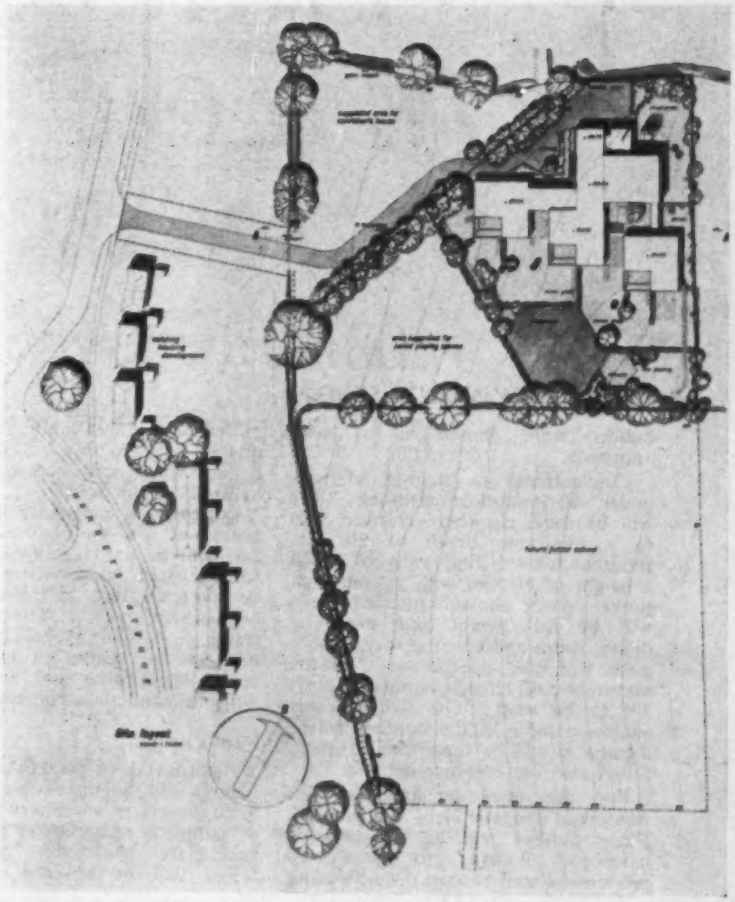
2. see LYALL ADDLESON: *The Building Envelope*: T.P. Diploma Thesis, University Coll., London: 1957.
3. K. M. KENYON: "Oldest Town in the World", *The Times*. August 22, 1958.
4. see BENJAMIN ROWLAND: *The Art and Architecture of India*. p. 177; and the towers of the temple cities such as Madura (seventeenth century), p. 192
5. see LETHABY WEBB and others; also G. H. COOK'S *Old St. Paul's Cathedral*, pp. 32, 42.
6. GEOFFREY WEBB: *Architecture in Britain: The Middle Ages*. Pelican History, p. 129.
7. M.G.: "Miscellany", October 6, 1958.
8. HENRY-RUSSELL HITCHCOCK, in his introduction to *Built in U.S.A.: Post-war Architecture* (Museum of Modern Art, 1952).
9. Quoted by Christopher Hussey in his life of Sir E. Lutyens.
10. which gives owners within 100yd a right to appeal against a building rising over the 100ft level.
11. in which connection see the recent block erected next to Paddington Station, designed by C. H. Elsom.
12. now chairman of the Royal Fine Art Commission and of the Archibshop's Committee on Redundant Churches.

WOKINGHAM INFANTS SCHOOL COMPETITION

Winning design by WELLS AND HICKMAN

THE architects' aim, in designing this school, has been to create a complete and distinct environment, rather than a building. A long access road has therefore been planned by placing the school on the high ground at the north corner of the site. It was felt strongly that the existing pattern of trees and hedges form an integral part of the landscape and must therefore not be disturbed. This, and the desire not to prejudice the treatment of the future junior school were basic factors in the design of the layout.

The architects also felt that on this rather open site, the school should have a feeling of opening out into the surrounding country, with the utmost integration of outdoor and indoor spaces.



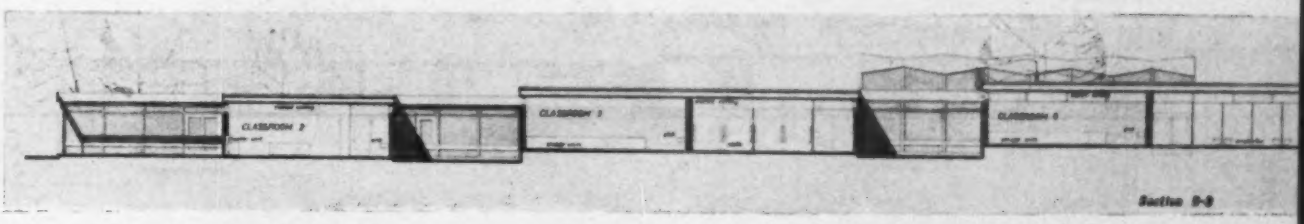
Planning

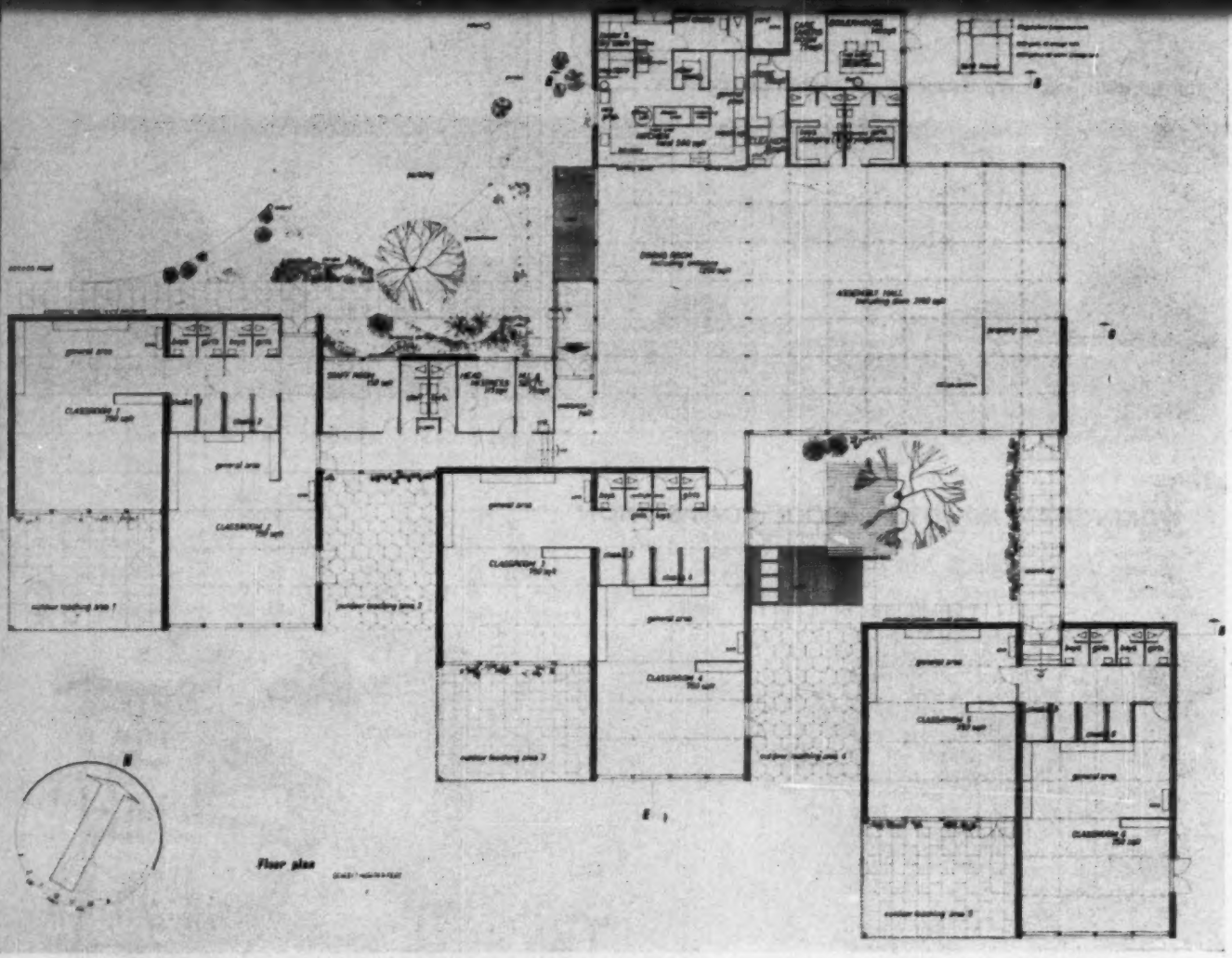
To encourage a feeling of community, the classrooms, for all except the youngest children, are grouped round an internal court, where a raised timber deck and a pool form both a visual focus and a play-work area.

Differentiation between age groups has been achieved by varying outlook and furniture rather than by squeezing classrooms into arbitrarily different shapes.

Construction

In designing a school for a competition it was necessary to make a number of arbitrary decisions. Traditional methods of construction within the means of the smaller





WOKINGHAM INFANTS SCHOOL

builder were chosen as a basic approach.

Conventional strip-foundations under all load-bearing brick walls will be used, elsewhere cranked slab to a minimum depth of 2ft 6in. External load-bearing walls go up to a height of 6ft 6in, with 1ft 6in high timber posts above. Internal walls will be full height and over the dining room and covered way, timber posts will hold up the roof. In the assembly hall, shaped laminated posts are to be used. The flying beams enclosing some of the outdoor teaching spaces will be supported on metal tubes, also the entrance pergola.

For the floor construction, 4in reinforced concrete slabs will be used. Floor finishes will be of specialist hardwood flooring to classrooms proper and staff rooms; p.v.c. flooring to general areas and cloakrooms; quarry tiles to w.c.'s, kitchen and boiler room; cork tiles to assembly hall and dining room.

For the roof construction laminated beams at 6ft 4in centres, spanning 24ft will be used everywhere, except for the staff wing, where the same beams span 18ft, and the assembly hall which uses a plywood space frame. Stramit decking, placed *between* the beams on battens, will be insulated below and finished with 3-ply felt and slate chippings.

Finishes

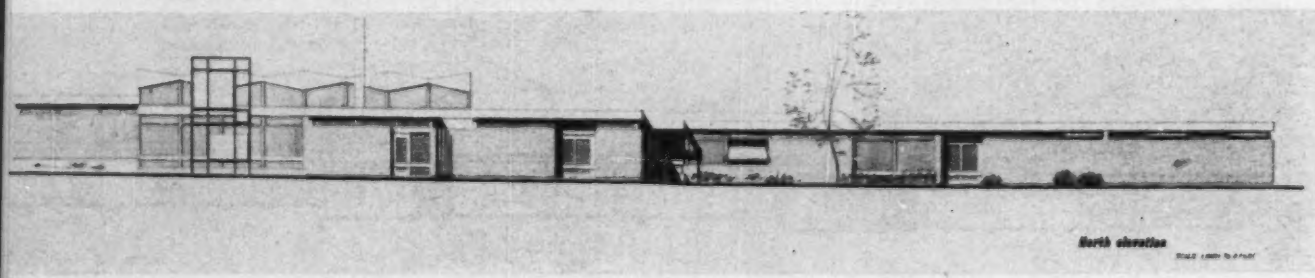
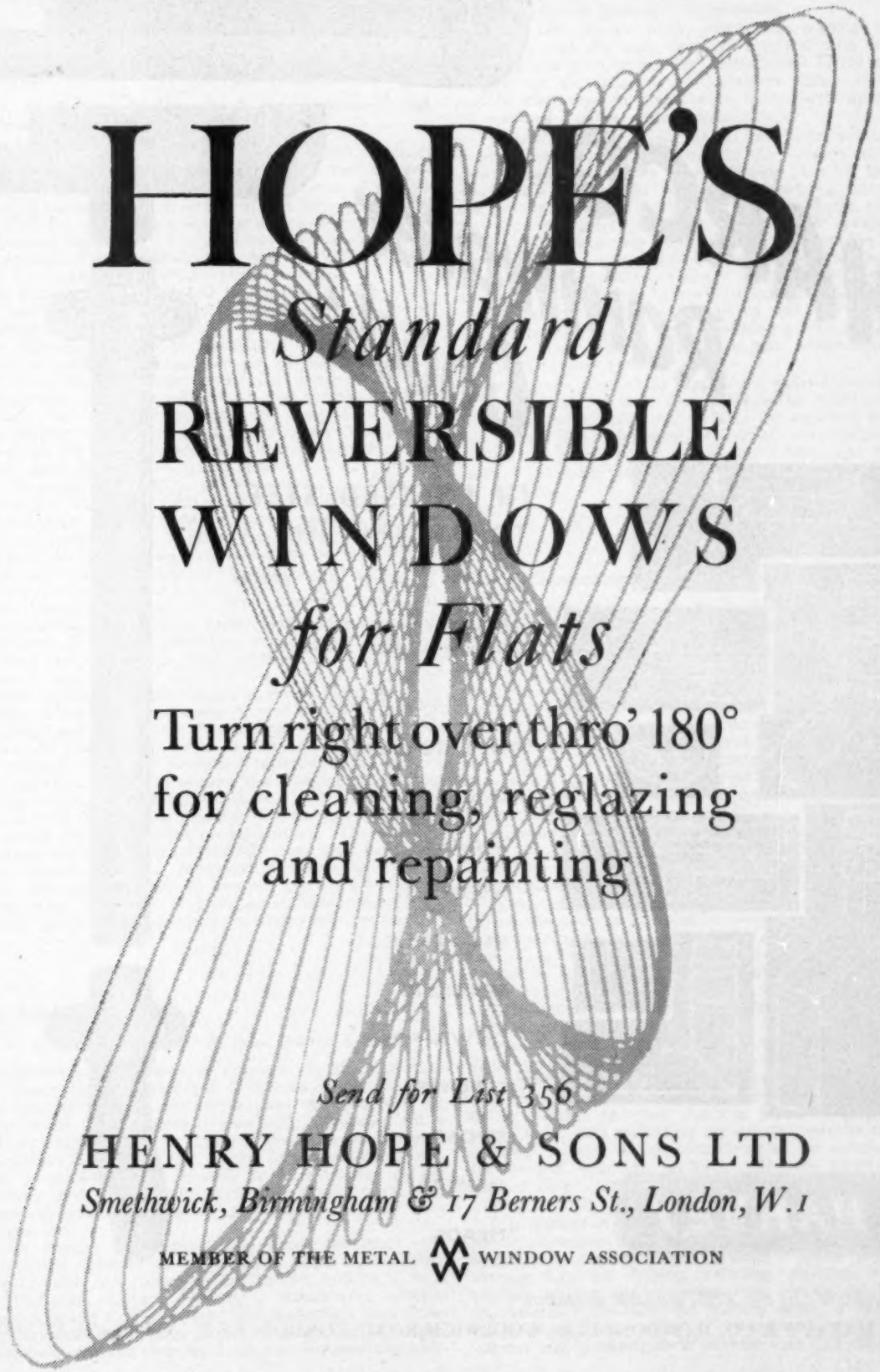
External load-bearing walls and facings will be light-coloured bricks. Solid panels in window walls will be of sandwich construction with rough-cast glass outer skin. Continuous fascia will be covered with white stove-enamelled asbestos cement. The assembly hall fascia will be plywood.

Internal load-bearing walls, wherever possible, will be fairfaced brick; kitchen and sanitary accommodation, plastered.

All classroom ceilings will have open softwood slats spanning from beam to beam, forming continuous ceiling below beams, with Rocksil insulation above.

Heating

Hot-air heating, thermostatically controlled, will be in all rooms, the heat exchangers being fed by pump-circulated hot water from oil-fired automatic boilers. Staff rooms will be heated by wall radiators, cloakrooms by gilled tubes and the kitchen by electric heating.



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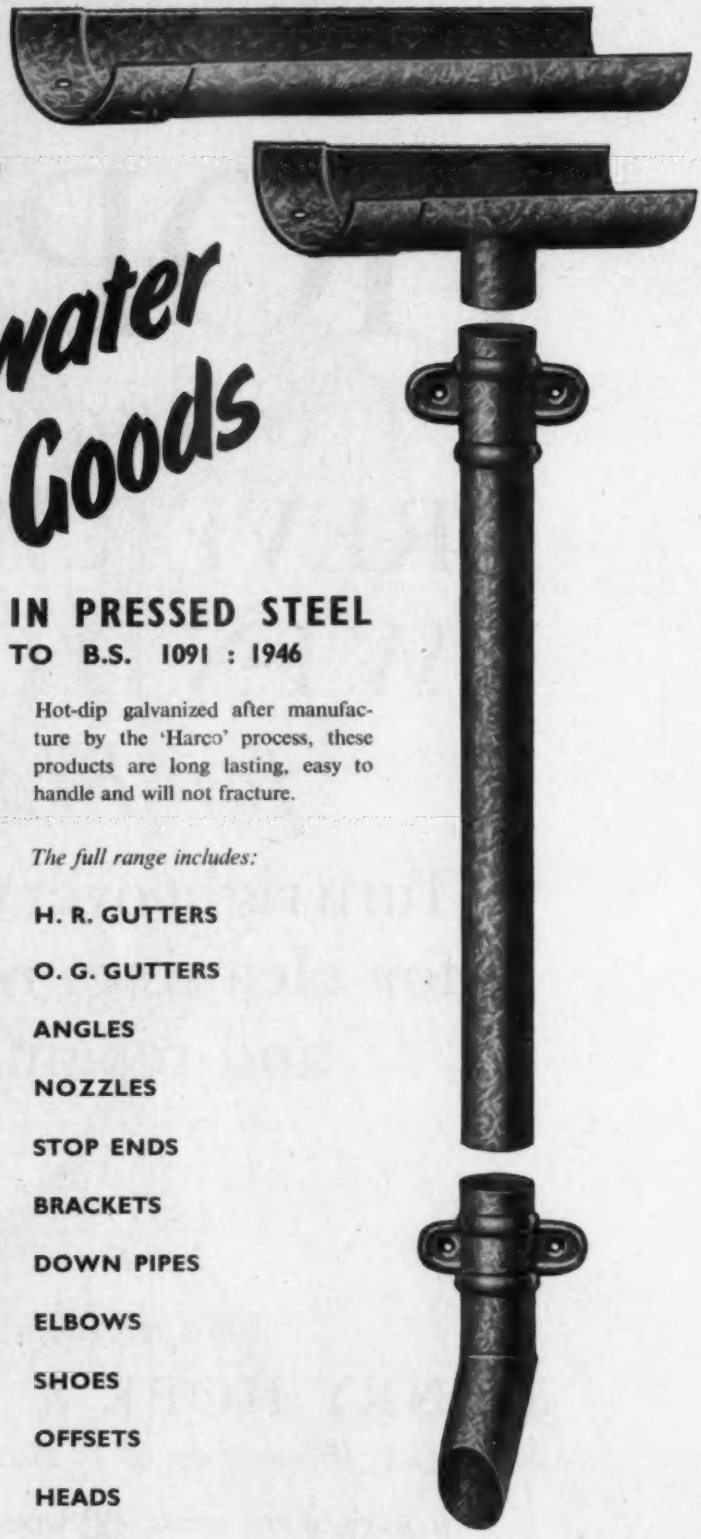

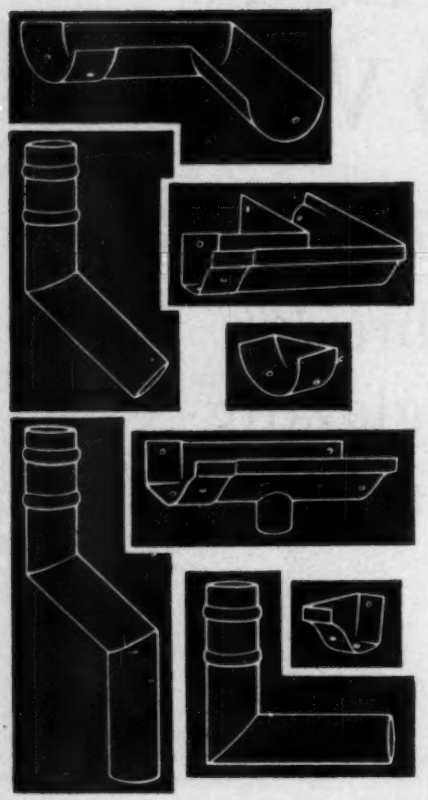

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LIBRARY NOTES

Housing

by J. D. James. Butterworth & Co. (Publishers) Ltd. 57s 6d.

IN the last few years the resumption of slum clearance schemes on a large scale, the making of numerous compulsory purchase orders and the reappearance of demolition and closing orders in large numbers have emphasized the need for a reliable up-to-date and well-written book on housing legislation. The need has been underlined by the passage of two consolidating Acts in 1957 and 1958. This book admirably and fully meets that need.

So often books of this kind are written in such a way that they can only be understood by legal experts. This is certainly not the case here, and the book has clearly been designed to appeal to architects, surveyors and land agents, as well as local government officers and lawyers. The book consists of four parts. The first part contains a lucid and useful introduction to the subject which is at once easy to understand and very fully documented. One chapter in this part gives a particularly helpful outline of the law on compulsory purchase and compensation. There then follow two parts devoted to the text of *The Housing Act, 1957*, and the *Housing (Financial Provisions) Act, 1958*. Each section is fully annotated and a particularly helpful feature of these notes is the part entitled "History". As is often the case with consolidating enactments, many sections cannot be properly understood unless reference is made to repealed provisions. The "History" notes indicate and explain the earlier provisions when these are relevant.

Among the detailed notes are to be found many useful summaries of law and procedure, especially, for example, the very full account of public inquiries appearing in the notes to Section 181 of the 1957 Act. The notes to those sections which authorize appeals against orders made by a local authority contain many helpful suggested grounds of appeal and reference is always made to the appropriate forms. All the specified forms are set out in the last part of the book which also provides a table listing the various Acts repealed, section by section, and showing the sections in the new Acts which replace them.

The book is clear and pleasant to read. A word should be added on the publisher's contribution. The binding, printing and layout are attractively done and paper has been chosen which has succeeded in making a book of some 560 pages very easy to handle. The work will be of great value, especially to local government officers, but also to all those professionally concerned with housing.

F.H.B.L.

The Perspectivist

by R. Myerscough-Walker. Sir Isaac Pitman & Sons. 60s.

THE subject of perspective is given too little attention at schools of architecture, so that this book is a most welcome addition to any architectural or art library. Its chief value is to awaken interest and enthusiasm for a subject which tends to be regarded too much as a separate art for the industrious few. Being largely autobiographical, it should not be treated as a text-book, as the methods and prejudices of perspectivists vary more than those of architects, even the few who make their own perspectives.

Not enough has been written about architects who themselves designed in perspective. Apart from Basil Spence, who now seems to be unique, architects, such as Richards, Horsnell, Atkinson, Mendelsohn, Dudok, Hepworth and Farey, designed and made their own drawings in perspective rather than just plans and elevations, with the result that their buildings had romance and composition, which are so lacking in many modern buildings with perspectives prepared by specialists.

It is a pity that the book, which is so readable at the beginning and the end, becomes involved with tedious alchemy and petty whims and technicalities in the middle chapter on the sequence of operations, many of which can be eliminated in favour of a more direct approach, as practised by most other perspectivists.

The black-and-white illustrations have been well chosen from a wide range of artists, and the author's marginal pen-and-ink sketches are more pleasing than his finished work, as is so often the case. It is a great pity that all of the coloured illustrations are of his own work and do not show a greater variety of style of other artists with more colour sensitivity, and a more spontaneous treatment. However, one cannot but have the greatest admiration for the versatility, industry and individuality of a personality combining the varied talents of artist, author and alchemist. Other perspectivists will, no doubt, be grateful to Myerscough for establishing a reasonable scale of fees. Too many architects expect perspectivists to charge at pre-war rates.

Although it is good to experiment with new media, it it quite absurd to state that water-colour died out with the Renaissance, and is not suitable for depicting modern buildings. The inspiration of Turner and Cotman will outlive the garish poster art of this present age, just as natural materials will outlive many synthetic materials on buildings.

MICHAEL FAREY.

Grounds Maintenance Handbook, 2nd Edition

by Herbert S. Conover. F. W. Dodge Corporation, N.Y. Distributed by Interscience Publishers Ltd. $10.75 or 78s.

THIS book was first published as an operation manual for the Tennessee Valley Authority with whom the author has spent much of his professional career as a landscape architect. Its scope covers the whole technical field of the maintenance of public open spaces including not only such horticultural aspects as the growing and maintenance of turf, the planting and care of trees, shrubs and perennials, insect disease and weed control, but also the related fields of public relations, roads, engineering and soil erosion.

The whole book, of course, deals with American practice based on a different climate and ecology and a different insect and microbe population. This makes much of the information on plants and their cultivation and protection somewhat misleading for practice in this country. Nevertheless the book is a model of clear presentation and is very wide-ranging in its scope. As nothing remotely resembling it has so far been produced in this country it should be useful not only to landscape architects and parks' superintendents, but also to the growing body of people concerned with the maintenance of planted areas open to the public.

With the rapidly growing number of motor-cars, our dense urban populations are already spilling over into the countryside with ever-increasing intensity. One of our greatest problems in the immediate future is going to be allowing for their freedom of movement without at the same time sacrificing the natural beauties they are seeking. A book of this kind is one of the essential tools for dealing with the problem. Perhaps some public-spirited body such as the Civic Trust will sponsor an English version.

It is difficult in such a large work to pick out particular points of interest, but possibly the following will be most useful to a reader in this country: tables giving the average time for digging, handling, planting, watering, pruning, guying, and wrapping trees; detailed information on American standards for nursery stock; a description of the very wide variety of maintenance equipment in current use, including some exotics; very full chapters on

LIBRARY NOTES (continued)

weed and insect control; and lists of shrubs and their characteristics.

The book is well produced. The illustrations are excellent and by present-day prices the book is good value to anyone who is concerned with what to us is still a comparatively new field.

GORDON LOGIE.

"Spon's Architects' and Builders' Price Book" 1958-59

edited by Davis, Belfield & Everest. 30s net.

AS a work of reference, "Spon's" price book requires little in the way of an introduction, and, as previously, this 84th edition contains comprehensive memoranda, covering all points essential for a thorough understanding of building pricing procedure.

It is often said that contracting is a hazardous business; whilst this is true of firms who use the elements of guesswork and gambling, consequently producing tenders that are too low to return a profit, the successful builder adopts a method which will arrive at the probable cost of the job, with accuracy. When deciding "what it will cost", this book can be of considerable assistance and will inevitably help to reduce time spent on estimating, by giving the estimator a valued second opinion.

The data included within its pages has been covered under three main sections, i.e., Part I, Estimating, incorporates—directions governing the information given; rates of wages and working rules; market prices of materials; plant, labour and material constants; and prices for measured work. Part II covers the various methods which can be applied when preparing approximate estimates. Part III describes the methods usually adopted when charging dayworks and fees for professional services.

It is anticipated that this reference book will prove of interest and assistance to all who need to be acquainted with the current cost of building work. The volume of information incorporated within this book has been clearly condensed and presented in a logical manner, to meet practical demand.

Providing the contents are used with discretion, supported by the reader's own experience, this price book, at only 30s, must prove to be a most valuable asset.

R. HARRINGTON.

An All the Year Garden

by Margery Fish. W. H. & L. Collingridge Ltd. 21s.

WITH the theme, "An All the Year Garden", the author builds up her picture by taking various groups of plants like penstemons, violets, hardy cyclamen, and bulbs, and describes several species of varieties in each group, thus giving the composite effect, which is colour or display over a long season.

Added weight or contrast is provided by chapters on foliage plants, those which flower in winter, and those which normally flower over a long period. The subjects dealt with are mostly those which are grown by the author, who regards her plants as almost living entities, writing knowingly, with experience and feeling, e.g., "Red Paddy is a dear little thing . . . but it can be a little beast. . . ." "Crathes Crimson used to like me, but she doesn't now. . . ." ". . . and a hard-eyed little wench called Sceptre. . . ." or, ". . . it bloomed like a little angel. . . ."

Possibly, as a mere male, I am biased but I gained the impression that this book, written as it is by a woman, is principally for women gardeners, but I am sure that, as a result of it, many husbands are going to have to buy at least some of the plants described.

Basically, this is a book about plants, and of interesting points concerning them. It serves to introduce plants to gardeners, and to potential gardeners especially, rather than to deal with specific requirements, although these factors do enter frequently in regard to site, or any special treatment.

I like the reference to ". . . if we collect cleverly . . ." or, "my friend gave me . . .", otherwise one, or beginners particularly, would be put off by the thought of the cost of such a wide variety of plants.

One point I noticed was that on page 39 there is mention of bulbs, "I can't plant bulbs in the grass as it all gets cut in the spring . . .", yet, on page 34, there is mention of many bulbs being grown in the lawns. Possibly the grass is other than in lawns?

The 43 illustrations deal with some of the plants described, as growing in the author's garden. They are of good quality. At 21s the book is good value, although it is not very long, being 137 pages. There is a useful index.

It is all very chattily written, and readers are taken into the garden with the author. It will provide enjoyment and benefit to flower garden enthusiasts, and to those on the way to being enthusiasts.

W. H. LEWIS.

Amateur Gardening Annual

edited by A. G. L. Hellyer. W. H. & L. Collingridge Ltd. 6s.

THIS excellent all-round book contains 41 articles on all aspects of gardening. It is the annual's function to record recent developments in horticulture and give full information on all methods of gardening.

Most types of garden are covered: formal, informal, woodland, sea, alpine, sunken, etc. There are chapters on fruit pollination problems, pruning flowering shrubs, planting grass for lawns, and many other practical articles of great interest and value.

Dr. Bowen, a research worker at Harwell, has written an enlightening article entitled "Atoms and the Gardener". He explains some of the new techniques of radioactivity which now aid horticultural research. There is an interesting chapter on plastics, written by Mr. A. J. Huxley. He describes recent developments and illustrates the many parts which the useful material plays in the horticultural world. Other scientific articles include a valuable chapter on automation in the glasshouse, electricity in the garden, and artificial light for plant growth.

No gardening annual would be complete without mentioning our national flower, the rose, and two chapters are devoted to this. One chapter is on easily grown roses and the other on new roses, with an encouraging conclusion stating that our new roses are vigorous, and there is no longer any room for the rose which will not tolerate our so-called "summer".

Finally, there is a valuable guide by Mr. J. S. Dakers, with useful gardening advice for each month of the year. This includes vegetables, flowers, fruit and greenhouse plants.

The book is fully illustrated, but contains only four colour plates. It is a pity that there could not have been more colour photographs, as, in a book of this kind, colour is definitely called for. However, at the low price of 6s., it is hardly surprising, and to all interested in gardening, with or without "green fingers", the annual is very good value.

H.K.

Books received

Architecture, Nineteenth and Twentieth Centuries, by Henry-Russell Hitchcock. Published by Penguin Books Ltd. Price 70s.

Scandinavian Architecture, by Thomas Paulsson. Published by Leonard Hill (Books) Ltd. Price 42s.

The Design of Physics Research Laboratories. Published on behalf of The Institute of Physics by Chapman & Hall Ltd.

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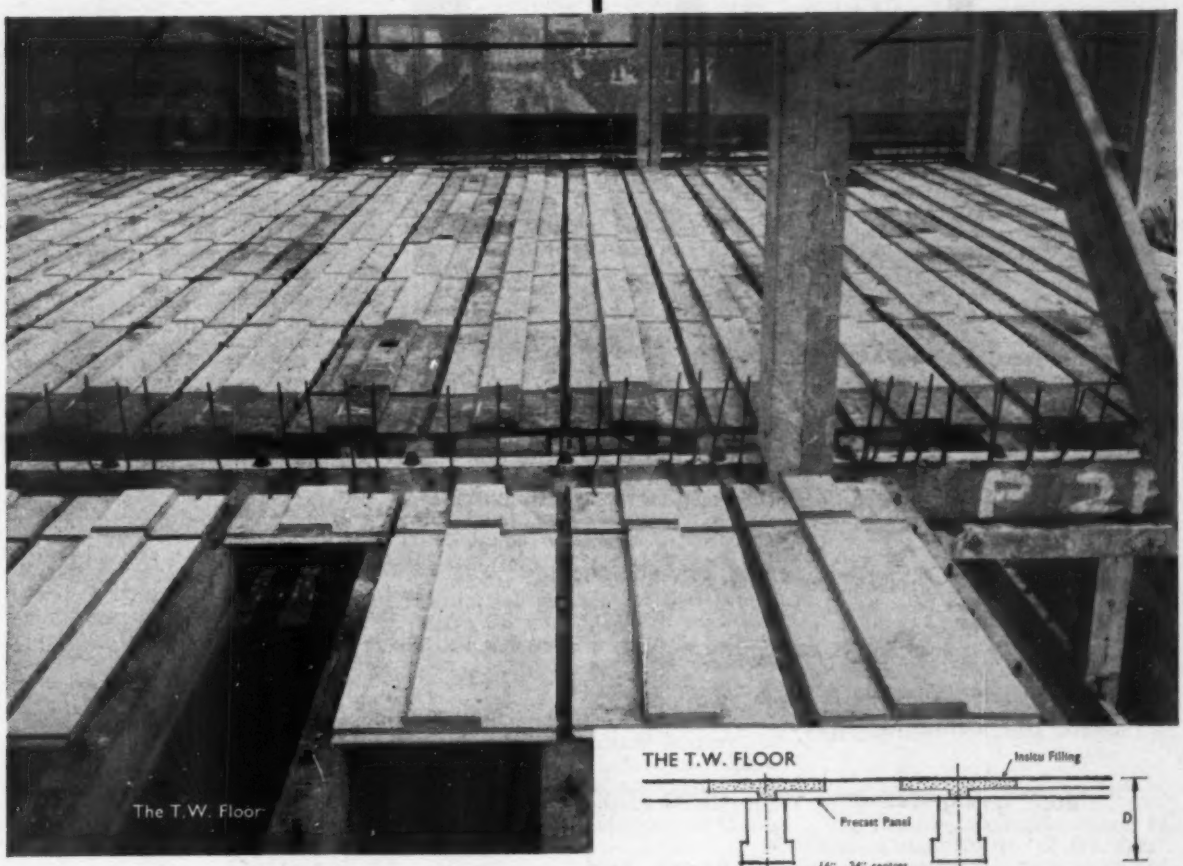
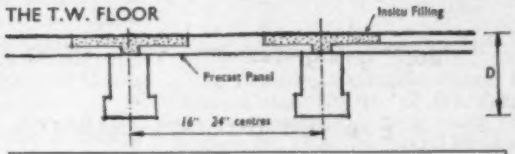


The T.W. Floor

THE T.W. FLOOR



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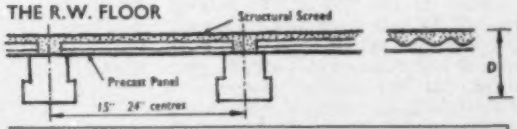

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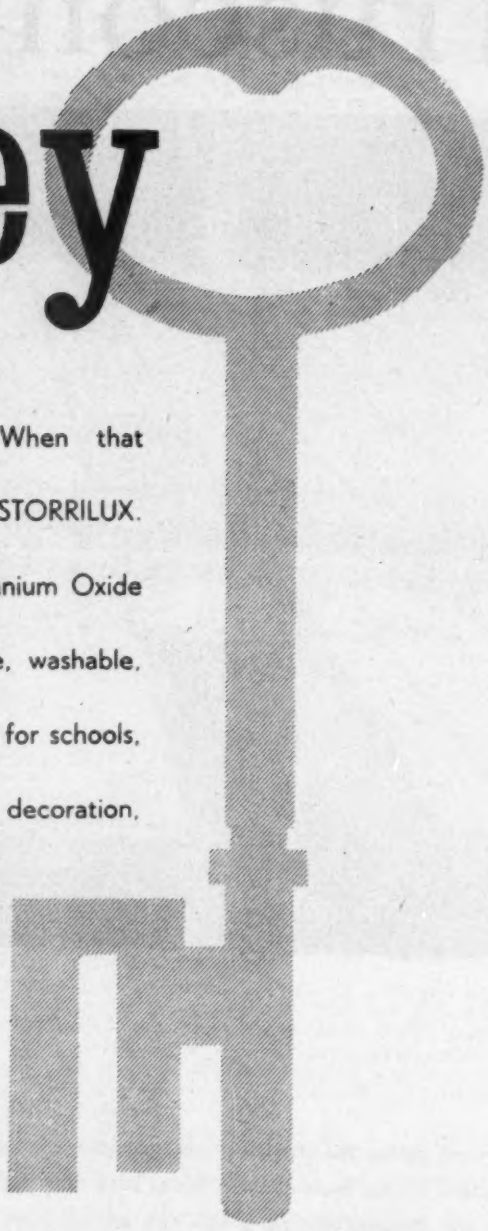

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Industrial Notes

● Mr. R. Edwin McAlpine has been elected chairman of the Nuclear Power Plant Co. Ltd., of Knutsford, Cheshire, in succession to the late Sir Claude D. Gibb.

● Building Industry Distributors, the national association of builders and merchants, are now allowing extended credit for the purchase of all fitments and appliances for the home. For the average transaction, a 10 per cent deposit will be required, with payment extended up to two years, but in some cases it may be extended over an even longer period. Installation charges can be included if desired.

● Mr. K. S. Brown, the sales manager, and Mr. C. W. Pion, the secretary, have been appointed executive directors on the board of Sissons Bros. & Co. Ltd. In addition Messrs. H. E. Rayner, C. B. Smith and A. C. Sissons have, respectively, become factory personnel manager, factory manager and project executive.

● Goodenough Pumps Ltd. have appointed Messrs. John Roulstone Ltd., of 49 Railway Arches, Pilgrim Street, Newcastle upon Tyne, 1 (telephone: Newcastle 20253 and 26969), as their sales and service agents for the counties of Durham, Northumberland, Westmorland and Cumberland and also in Middlesbrough.

● The English Electric Co. Ltd. have moved their service centre from Hampstead to extensive premises at 231 The Vale, Acton, London, W.3. From here they will be able to extend servicing facilities over the whole of London and the south coast, south of a line from Lyme Regis to the Wash. The new depot is approximately four times the size of the old one. Mr. E. Foster continues as depot manager, with Mr. W. E. Walmsley as service supervisor.

● Fablon Ltd., manufacturers of self-adhesive plastics, have moved to new offices at 49 Park Lane, London, W.1 (telephone: Hyde Park 2155).

● Holoplast Ltd. have moved their London offices to 2 Caxton Street, London, S.W.1. The new offices form part of St. Ermin's Hotel and the new telephone number is Abbey 4866.

● Multiglass Ltd., manufacturers of thermal insulating glass units, have moved to new offices at 65 Haymerle Road, London, S.E.15 (telephone: New Cross 3668/9).

● As a result of the acquisition of the whole of the share capital of the Airscrew Co. and Jicwood Ltd. by the British Match Corporation Ltd., Mr. Eoin C. Mekie, C.B.E., has retired from his position as chairman of the former company. He remains a member of the board of directors by special request of the British Match Corporation, but is succeeded as chairman by Sir Anthony Elkins, C.B.E., deputy chairman of the Corporation.

● Winn & Coales Ltd. have formed a contracting department to carry out the protection of plant, pipe-lines, structural steelwork, etc. For the time being it will operate from the northern area headquarters at Denso House, Glebelands Road, Sale, Cheshire (telephone: Sale 8271). Inquiries relating to cathodic protection (in conjunction with the Denso system) should be addressed to the head office at Denso House, Chapel Road, London, S.E.27 (telephone: Gypsy Hill 4247).

● Panaline has been decided upon as the name for the new timber curtain walling system recently introducted by H. Newsum Sons & Co. Ltd. The system consists of two-storey non-load-bearing front and back walls built in between load-bearing cross walls.

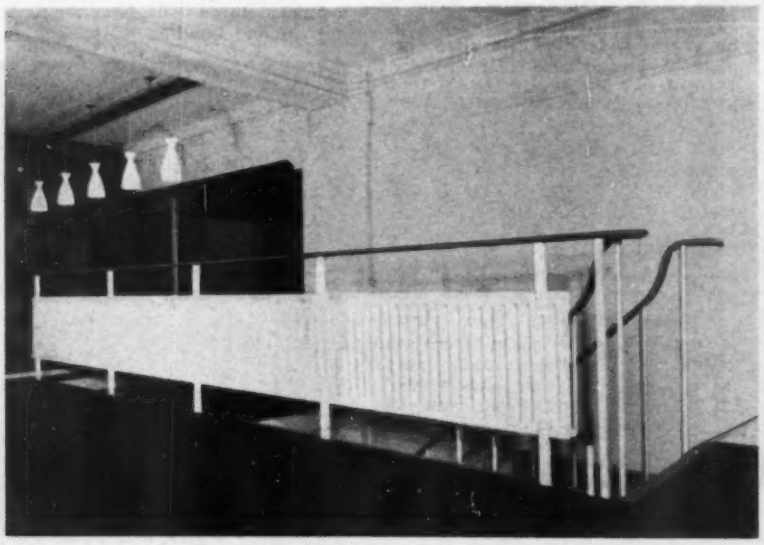
● The new Slimline toilet seat (see "New Products", page 237, this issue), made by Ekco Plastics Ltd., is the winner of the First Annual I.C.I. Alkathene competition.

● Mr. A. G. Mandry has retired from his position as managing director of Libraco Ltd., manufacturers of library and office equipment.

● Crabtree Electrical Industries Ltd. are to pay an interim dividend of 7½ per cent on their ordinary shares. Payment will be made on March 31, 1959.

● Expandite Ltd., manufacturers of sealing compounds, jointing and weatherproofing materials and anti-corrosive treatments, celebrate their Silver Jubilee on February 24, 1959. The company was founded by Mr. Bertram Watson, who today is their chairman and managing director.

This 24in Gulf panel radiator, which measures 19ft long and has a heating surface of over 88 sq ft, is fitted as an integral part of the balustrade. It warms not only the mezzanine floor at its own level, but also the open space below



"REVIEW OF THE YEAR"

The following alterations should be made in the "Review of the Year" which appeared in our issue of January 28, 1959. On page 115, illustration No. 11 shows the factory for Sperry Gyroscope Ltd. and not that of Broads Manufacturing Co. Ltd. It was designed by the department of the chief architect to the Bracknell Development Corporation. The general contractors were J. Jarvis & Sons Ltd. and the value of the contract was £862,796. On page 116, caption 15, the contractors for the new engineering college for the British Tabulating Machine Co. Ltd. were G. Davies & Sons (Broxbourne) Ltd. Also on page 116, caption 18, the general contractors for the new workshops in Mark Road, Hemel Hempstead, were F. W. Sears & Son Ltd. and not Leslie & Co. Ltd.

On page 127, caption 4, "The New Gog" public house is owned by Courage & Barclay Ltd. The general contractors for this building were E. A. Roome & Co. Ltd. and not E. A. Roome & Barclay Co. Ltd. On page 107, caption 6, the general contractors for the single-men's residences at Canonbury were Rush & Tompkins Ltd.

NEW PRODUCTS

In this feature are reviewed new lines introduced to the building industry for the first time and additions or improvements to existing ones. Any advantages claimed for a product are from information supplied by the manufacturer

New Electric Kitchen Fan/Ventilator (A)

This company is now producing a small electric kitchen fan which is complete in one unit. This unit, known as the Mechavent 75, fits into the wall above the cooking stove and removes stale air, cooking fumes and smells. The steam from boiling water is also removed and a continuous flow of air prevents condensation on cold surfaces. The inside grill measures less than 12in square and is mounted one brick wide by three courses deep (9in by 9in). The fan is completely enclosed in the wall, together with its motor and is surrounded by a rustproof steel wallbox. When the ventilator is switched off, the louvres on the outside of the wall automatically close. The motor can be connected to any a.c. lighting mains or power point. A companion canopy can be supplied with the unit if desired. Price: £12 10s; companion canopy, £6 10s.

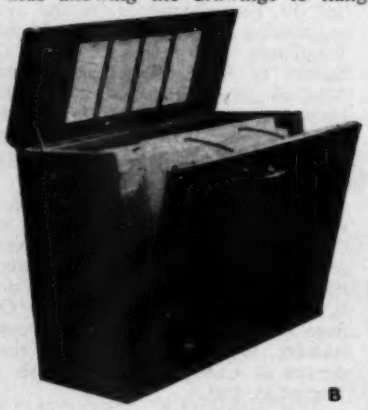
Greenwoods & Airvac Ventilating Co. Ltd., Beacon House, Kingsway, London, W.C.2. Chancery 8135.

Readers' Information Service, Ref. A. Date 18/2/59.

★

New Plan Cabinets (B)

This company is now producing both vertical and horizontal plan and chart filing cabinets. The "File A Plan" cabinets, as they are known, are made from heavy gauge steel in twin case construction. Each cabinet holds approximately 600 drawings or charts and on opening the lid, an index is visible which shows at a glance the location of the drawings. The front panel of the cabinet opens outwards to allow easy access to the drawings which are held in the cabinet by means of plan holders which are stuck to the top edges of the drawings. These holders are punched so that they slip on to parabolic bars inside the cabinet, thus allowing the drawings to hang down without creasing. The lid is controlled by pneumatic cylinders which ensure safe self-closing. The cabinets are finished either in silver-grey or office-green hammered stove enamel. Sizes: vertical cabinet—4ft 3½in high by 3ft wide by 1ft 8in deep; horizontal cabinet—3ft 3½in high by 4ft deep by 1ft 8in deep. Prices: vertical—52½gn; horizontal—57½gn; plan holders—2gn per 100, plus 9s 6d purchase tax.



B

The Renown Metal Works Ltd., Sulivan Road, London, S.W.6. Renown 1425.

Readers' Information Service, Ref. B. Date 18/2/59.

★

New Gas Cooker (C)

The Courier cooker, which is designed for use in small kitchens, is the latest addition to this company's range of gas appliances. The hotplate has three boiling burners and a grill and is of cantilevered construction with glide-over one piece vitreous enamelled top bar, with spill tray underneath. The grill is located centrally in the hotplate and its pan is positioned by means of a recess in the fixed crown. The oven is heated by a back-burner, has an overall drop door and is fitted with a hinged top which drops down for easy cleaning. A storage compartment is situated below the oven. The cooker fits flush to the wall and the platerack (optional extra) can be dropped down to the wall surface when not in use. Finish: white or cream vitreous enamel, with tops in blue, green, red, burgundy, ivory or black. Dimensions: overall—41⅛in high by 19¼in wide by 18⅛in deep; oven door opening—13¼in high by 15⅛in wide; oven inside—12in high by 14⅛in wide by 12⅞in deep; hotplate—35¼in high by 18⅛in wide by 15½in deep. Price: cooker—£25 15s, platerack assembly—£1 15s.

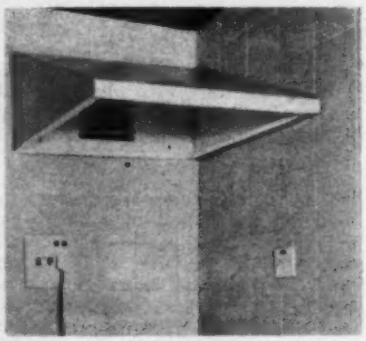
Sidney Flavel & Co. Ltd., Eagle Foundry, Leamington Spa. Leamington Spa 3091.

Readers' Information Service, Ref. C. Date 18/2/59.

★

New Glass is Better Will be Cheaper

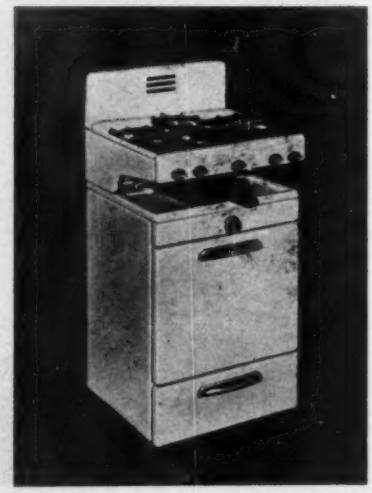
Ordinary window glass, which is pulled in the sheet from the molten glass in the furnace, has a perfect polish; it is "fire-finished". Unfortunately the weight and viscosity of the glass causes distortions as it is pulled; therefore, where absolute freedom from distortion is required, for car or shop windows, plate-glass, rough-cast to begin with and then ground and polished to a high surface, is used. But technically (and therefore commercially as well) plate-glass is a clumsy way of getting distortion-free glass, for almost half its thickness has to be ground away to give the polish.



A

Now Pilkington Bros. Ltd., of St. Helens, have invented a new kind of process, which gives the "fire-finish" of window glass together with the freedom from distortion of plate glass; they call the new product "Float Glass". In the words of the principal inventor, Mr. Alastair Pilkington, technical director of the firm: "The basic idea is a continuous ribbon of glass moving out of the melting furnace and floating along on the surface of molten metal. . . . Because the glass has never touched anything when it is soft except a liquid, the surface is unspoiled. . . . Because the suface of the liquid is dead flat, the glass is dead flat too. Natural forces of weight and surface tension bring it to an absolutely uniform thickness."

Seven years of difficult, financially risky and expensive development work were needed before this basically simple idea could be implemented on a commercial scale. Production is still limited, and Triplex are taking most of it for the car industry. As soon as production increases, there will be enough for mirrors and building work.



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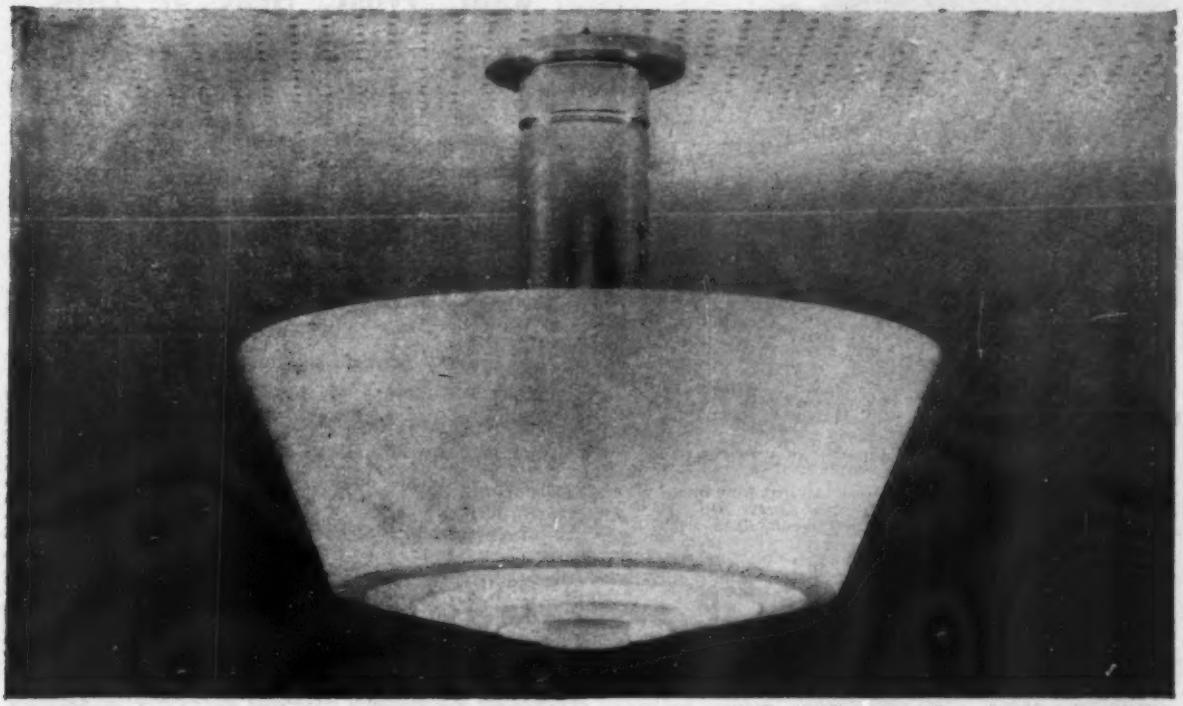

V. 82 12" diameter 200 w. 26s.8d. + 6s.0d. Tax

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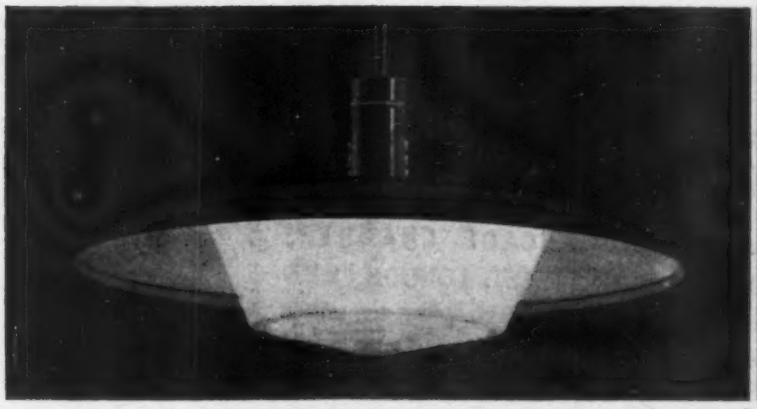
A basic range in translucent white opal plastic

Designed by Paul Boissevain, Dip. Arch.

On the school programme alone thousands of pounds have been saved by specifying Venturas – while maintaining high standards of quality and lighting efficiency.

For full information, including data on the new units with reflectors, ask for publication V.88.

Venturas are available from stock throughout the world.



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Light Sea Green and Olive Green Stone
is eminently suitable for interior or exterior use where great durability and unique appearance are of paramount importance. Architects may specify its use for Facings, Foundation Stones, Paving and Flooring, Steps, Cills, Shop Fronts, Surrounds, Pilasters, Fireplaces, etc. Ask for these Technical Pamphlets:
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The roof to be covered with Broughton Moor Light Sea Green best quality (coarse grained) Westmorland Slates, to be obtained from The Broughton Moor Green Slate Quarries Ltd., Coniston, The Lake District, Lancs, in random sizes about 18" to 9" long, proportionate and random widths, laid to a 3" lap in regularly diminishing courses, from eaves to ridge. Each slate to be securely fixed by two stout copper nails and wide slates are to be used on the hips and verges.

Alternatives: Seconds, Thirds, Special Peggies; Olive Green and Mixed Shades. Larger sizes also available.

Ridging: "Bromoor" purpose-made of crushed and moulded slate from the same veins is recommended.

Rain, Frost, Heat or Time do not affect their weather-resisting qualities

Quarried from one of the richest slate-beds in the world, Broughton Moor Westmorland Green Slates possess a rock-hard texture which makes them particularly suitable for use in chemical-laden atmospheres. Of picturesquely rugged surface and available in a wide range of harmonious colourings—Light Sea Green, Olive Green and Mixed Shades—they are the perfect medium for the roofing of all classes of architecture, whether domestic, municipal, commercial or ecclesiastical, enhancing the appearance of even the plainest edifice. Samples and prices gladly supplied.

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The BROUGHTON MOOR GREEN SLATE QUARRIES Ltd.
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Telephone: Coniston 225/6 Telegrams: Cann, Coniston

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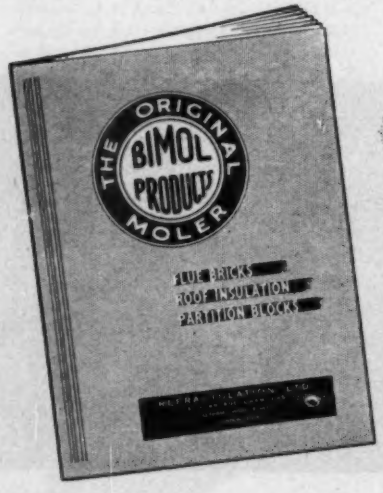

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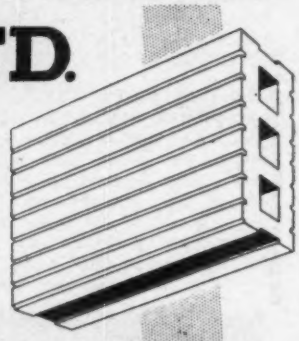

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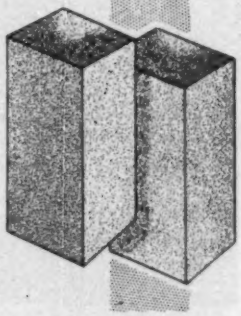

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Stephens & Co., Kings Mill, Tong Road, **LEEDS, 12**
Alexander Leith & Co., 25 Collingwood Street, **NEWCASTLE-ON-TYNE**
A. Blagden, 23 Claremont Crescent, **SHEFFIELD, 10**

NEW PRODUCTS (continued)

At the moment Pilkingtons are selling "Float-Glass" at the same prices as plate-glass, but they expect it to be cheaper when large-scale production gets under way; it will be made by a continuous, fully mechanized process, from raw materials to packaging warehouse, whose operating costs will consequently be much lower than those of plate-glass production.

Pilkingtons claim that the invention of this distortion-free, fire-polished glass is the greatest advance in glass technology of the present century.

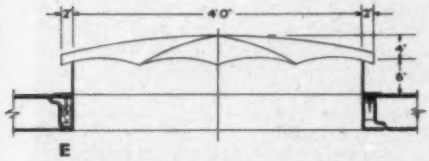
Pilkington Bros. Ltd., St. Helens, Lancs. St. Helens 4001.

Readers' Information Service, Ref. D. Date 18/2/59.

★

New Plastic Sheets and Rooflights (E)

Four new items, including a special grade of sheeting for interior use, and three new forms of rooflight, have been added to the Unilux range of glass-fibre reinforced polyester resin products. The new sheeting, grade FR (Int), is intended for use where weathering properties are not of prime



E

importance, where a greater degree of self-extinguishing is required and where especially stringent fire regulations are enforced. The new sheeting is, at present, made only in opaque colours, but a translucent form is being developed. It is available in 27 different profiles, prices being the same as for grade FR. The new Unilux insulated decking light is designed for use with Universal asbestos cement insulated hollow or battened decking. It is a translucent cavity unit with a light transmission of over 70 per cent and a calculated "U" value of 0·5. Flanges on the light rest on the adjoining asbestos cement decking units and can be drilled to take fixings. The felt or other roof covering is dressed over the flange and up the sides of the light. Standard dimensions are: 2ft 7½in by 9ft 10¾in and the unit costs £24 10s and £28 10s in Unilux grades A and FR respectively. The new Unilux dome light (illustration) is fluted in form, the dome itself being translucent and the curbs opaque. Two types are available, one with plain curbs, and the other with curbs incorporating a form of ventilator designed to remove any condensation which may form on the underside of the dome. Standard dimensions are 24in square and 48in square, but other sizes can be produced to specification. Fixing is carried out in the same way as for the decking light and prices range from £7 10s. A double-cranked Unilux sheet has been devised to provide natural lighting in Universal Handcraft and Cambridge type self-supporting asbestos cement buildings. It can be used only as a crown unit, and complete rings of asbestos cement cranked units are necessary on both sides of each ring containing the Unilux unit. Prices for this unit are £14 for grade A and £16 for grade FR.

U.A.M. (Plastics) Ltd., Tolpits, Watford, Herts. Watford 34551.

Readers' Information Service, Ref. E. Date 18/2/59.

★

New Control for Oil Burners (F)

A new form of flame failure safeguard and programmer control has been introduced for use with the smaller pressure type gun burners, burning light oil and the smaller packaged boilers fired with light oil. The control provides a five-second pilot proving period with a ten-second trial for ignition of the main flame on piloted burners. A five-second trial for ignition is given for direct spark ignited main flame burners. Known as the Fireye System FJ-2, the equipment consists of control type 29RF5, model 1005, mounted in a housing and scanner type 48PT1, model 1000. The housing should be mounted vertically on to a wall or panel by means of screws or bolts, and wired up. One method of installing the electronic scanner is to attach it to an insulating tube coupled to a threaded ¼in black pipe inserted in a hole in the furnace wall. The scanner must be sited close to the burner igniter assembly. It must view along the axis of the pilot flame at a point where reliable ignition of the main flame is assured. The scanner must have an unobstructed view of both the pilot and main flames which must completely cover the sight tube opening. The FJ-2 shuts off all fuel within two to four seconds following flame failure and the control programmes the operating sequence of blower and/or burner motor, ignition and fuel valve. It also provides a purge period before and after each firing period.

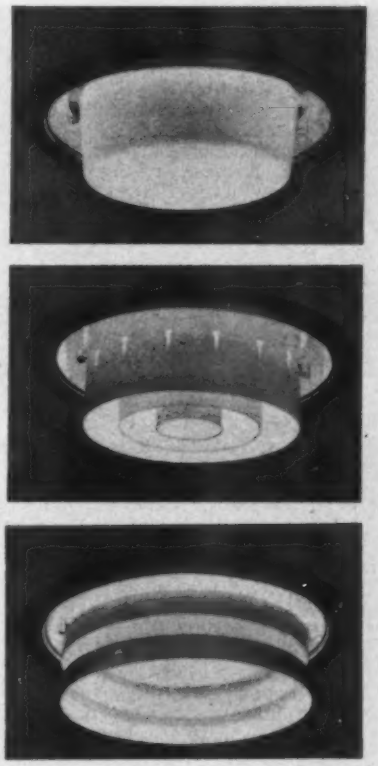
Fireye Controls Co. Ltd., 14 *Fetter Lane, London, E.C.4. Fleet Street* 6671.

Readers' Information Service. Ref. F. Date 18/2/59.

★

Polythene Toilet Seat

The new Slimline toilet seat is moulded entirely in polythene. It has a smooth surface top and bottom and no metal parts or buffers. It is fixed to the pan by means of two "L" shaped nylon pillars and clamping nuts. The all-enclosing lid is also made of polythene. The Slimline is available



H

in a choice of the following nine colours: black, white, corallin pink, primrose, ivory, pastel green, signal red, cornflower blue, and lemon peel yellow. Price: 37s 6d.

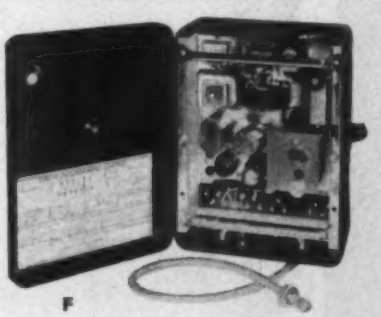
Ekco Plastics Ltd., Southend-on-Sea, Essex. Southend 49491.

Readers' Information Service, Ref. G. Date 18/2/59.

★

New Lighting Fittings (H)

Three new designs, which have particular applications for shop-fitting, contract furnishing, display and some domestic uses, have been added to the Mondolite range of recessed fittings. These are catalogue Nos. F913, F923 and F924 and are shown respectively top, centre and bottom of our illustration. When fixing, each of the fittings is recessed into the ceiling to a depth of 8½in. Fitting F913 has a reflector flange and glass support in silver anodized aluminium and the



F

NEW PRODUCTS (continued)

glass is satin white flashed opal. It projects 2in from ceiling level. Fitting F923 has reflector and flange of silver anodized aluminium and white pierced skirt and louvres. It projects 2½in from ceiling level. Fitting F924 has reflector and flange in silver anodized aluminium, obscured rimpled base glass and white stepped louvres. It projects 2½in from ceiling level. Each of the new fittings is suitable for 100/150W lamps. Prices (including purchase tax): F913—£3 19s 8d, F923—£3 19s and F924—£4 16s 10d.

Troughton & Young (Lighting) Ltd., 143 Knightsbridge, London, S.W.1.

Readers' Information Service, Ref. H. Date 18/2/59.

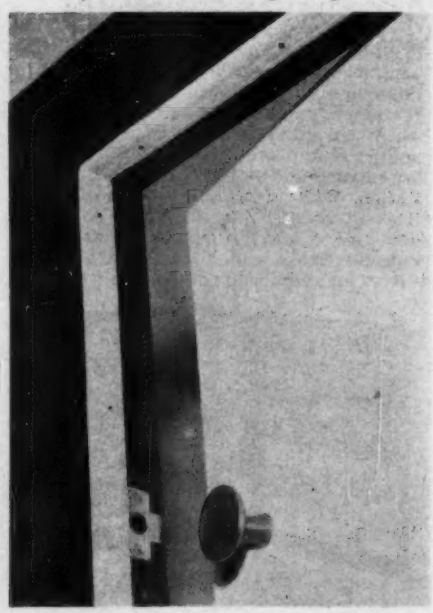
★

New Street Lanterns (I)

A new type of post-top lantern, which houses three 400W colour-corrected mercury lamps, has been conceived and developed by this company acting in co-operation with Birmingham's Public Works Department under the direction of Sir Herbert J. Manzoni, C.B.E., city engineer and surveyor. The new lanterns are to be used to illuminate the city's new inner ring-road which will generally be 110ft wide and are to be erected on the outer kerbs only, in pairs, and exactly opposite each other at intervals of 100ft. The lanterns are 4ft 6in in diameter, about 18in deep and comprise a domed canopy and dished translucent Perspex bowl. They are mounted on slender, 30ft high, steel poles and have a light output of approximately 36,500 lumens. As an aid to cleaning and lamp replacement, the bowl can be released and easily pulled down to the extent of 18in, where it is held by counter-balancing weights. The columns have special long bases to accommodate three sets of control gear and time switches. Many of the columns will be erected on viaducts and in parapet walls adjacent to subway entrances, the construction of which precludes the use of columns with normal roots. For such positions, special bases have been designed to fit in with the structural work.

General Electric Co. Ltd., Magnet House, Kingsway, London, W.C.2.

Readers' Information Service, Ref. I. Date 18/2/59.



K

★

New Nameplate Fixative

The fixing of nameplates has been simplified by the introduction of Twinstik, a new double-sided adhesive tape. Plates manufactured by the Metalgravure Co. Ltd. are backed by this adhesive tape, which is protected by a specially treated paper. The protective cover is stripped off to expose the other pressure-sensitive surface and the plate is then pressed into position. The adhesive which impregnates the tape is stated to be extremely strong and to have good ageing properties. The tape will adhere to practically any surface, since it is claimed to make a permanent bond to all metals, wood, plastics, fabrics, brickwork, plaster and cement. Articles backed with Twinstik can be fixed to comparatively uneven surfaces since the tape has the capacity to fill irregularities. Twinstik will also adhere to cellulosed surfaces.

Evode Ltd., Common Road, Stafford. Stafford 2241.

Readers' Information Service, Ref. J. Date 18/2/59.

★

New Vinyl Weatherstrip (K)

A new weatherstripping for sealing both internal and external doors has recently been introduced. Known as Duraflex Vinl-Stop, it consists of a flexible P.V.C. sealing strip locked in a frame of high-impact Geon R.A. 170 rigid P.V.C. Vinl-Stop seals by compression and creates no restriction to free movement of the door. It can be nailed and sawn, will not split, rust, rot, warp or swell and can be painted. Vinl-Stop is sold in sets for door openings up to 3ft by 7ft which cost 30s each, retail. The sets consist of one top and two side pieces which are ⅝in wide by ¼in high.

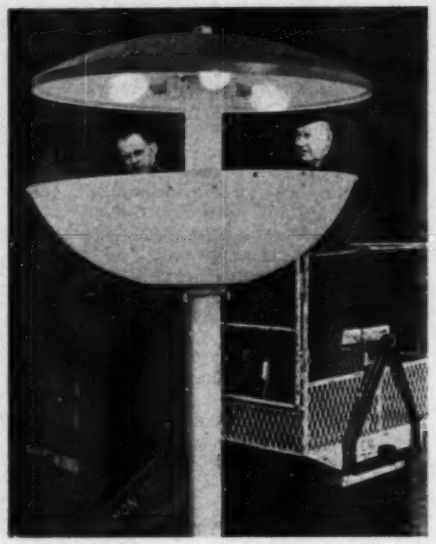
Adams & Benson (Dalbukirk) Ltd., Duraflex Division, Albion, West Bromwich, Staffs.

Readers' Information Service, Ref. K. Date 18/2/59.

★

New Floor-surface Armouring

A new low-priced surface armour, known as Decksmetal, is now being produced for use with mastic asphalt or rubber compound floorings. It is made in 4ft long strips in such a way



I

that assembly on site is both speedy and easy. By means of a special tongue-and-slot design, the strips can be made into a continuous floor armour which fully stabilizes the asphalt and provides a tough surface suitable for those situations where arduous trucking problems are encountered. The mesh is provided in 14g material, 1in deep, and each cell measures 3in. It is treated with a bituminous compound to facilitate adhesion to asphalt flooring. A flat support strip is provided for use where Decksmetal has to be laid on soft underlays.

Causeway Reinforcement Ltd., 66 Victoria Street, London, S.W.1.

Readers' Information Service, Ref. L. Date 18/2/59.

★

New Impermeable Cement

A new cement has been produced which will, it is claimed, permanently withstand the chemical action of both acids and alkalis. Known as Alcuma, it is composed of polyester resins scientifically blended with high quality inert fillers to produce an impermeable cement. It is supplied in the form of a separate powder and solution which are mixed together by the user to produce a cement of soft putty-like consistency. It sets to a very close, stone-hard texture, and is claimed to be uniformly resistant to acids, alkalis and water, not merely on the surface but throughout its entire mass. Alcuma is stated to be satisfactory for bedding and jointing, pointing vitrified tiles and bricks in the construction of alkali resisting floors, benches, tanks and brickwork. It may also be used for the jointing and sealing of acid- and alkali-carrying pipes.

J. H. Sankey & Son Ltd., Refractories Works, Ilford, Essex.

Readers' Information Service, Ref. M. Date 18/2/59.

Architects: Howard V. Lobb, C.B.E., F.R.I.B.A., A.I.Struct. E. John Ratcliff, O.B.E., F.R.I.B.A., A.M.T.P.I. *Display Designer:* James Gardner, O.B.E., R.D.I.

4,683,257 pairs of shuffling feet...

During the course of the Brussels Exhibition the Marley floor tiles of standard quality, on either side of the carpet in the Hall of Tradition, withstood the test of 4,683,257 people moving over them in slow procession. In the planning stage, anticipating a vast volume of traffic on the side walks, the architects chose their flooring from the standard range of Marleyflex tiles: when the exhibition closed the tiles retained the full attractiveness of their original appearance. Marley floor tiles also covered the entire floor area in the Hall of Technology and other areas in the British Government Pavilion: and these, too, completely merited their specification.

floor tiles by **MARLEY**

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ARCHITECT & BUILDING NEWS DETAIL SHEETS

Edited by Edward D. Mills, F.R.I.B.A., F.R.S.A.

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Main Entrance Gates, Hospital, Doha	John R. Harris	445.H.17.
Entrance Canopy, School, Wexham County Primary	Denis Clarke Hall	446.D.3.
Staircase and Bridge, Laboratories, Kuwait	John R. Harris	447.H.7.
Staircase, House, Loughton, Essex	Edward D. Mills & Partners	448 E.7.
Window, School, Marlborough Hill, London	Edward D. Mills & Partners	449.D.6.
Wall Cladding, School, Langleybury, Herts	James Cubitt & Partners in association with C. H. Aslin, Herts County Architect	450.D 2.

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408.	Farmer & Dark	Generating Station, Marchwood	Wall detail.

Number	Author	Location	Subject
409.	Ellis E. Somake	Shop, Charing Cross Road, London	Shopfront.
412.	I. M. Pei & Associates for Webb & Knapp Inc.	Mile High Centre, Denver, Colorado, U.S.A. ...	Wall detail.
414.	Frederick Gibberd	Offices, Albert Embankment, London	Wall detail.
419.	Farmer & Dark	Generating Station, Marchwood	Partition details.
427.	Skidmore, Owings & Merrill	Offices, Grand Rapids, Michigan, U.S.A.	Window & Wall details.
436.	Edward D. Mills & Partners	Factory, Eastleigh	Wall Facing.
450.	James Cubitt & Partners in association with C. H. Aslin, Herts County Architect ...	School, Langleybury, Herts	Wall Cladding.
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437.	Edward D. Mills & Partners	Factory, Eastleigh	Entrance Canopy.
444.	John R. Harris	Hospital, Doha	Loggia Frames.
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428.	Bronek Katz & Reginald Vaughan	Richard Shop, Oxford Street, London	Staircase.
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421.	Eric Lyons	Flats, Ham Common, Surrey	Kitchen Fittings.
423.	Westwood, Sons & Harrison	Shop, Long Row, Nottingham	Shop Counter.
425.	Westwood, Sons & Harrison	Shop, Bold Street, Liverpool	Display Case.
426.	Dinerman, Davison & Partners	Restaurant, Brompton Road, London	Counter and Screen.
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443.	Denis Clarke Hall	School, High Wycombe	Towel Rack, Towel Room.
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406.	J. L. Martin	School, Holloway	Bicycle Storage.
411.	I. M. Pei & Associates for Webb & Knapp Inc.	Mile High Centre, Denver, Colorado, U.S.A. ...	Pool.
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*Notes below give basic data of contracts open under locality and authority which are in a bold type. References indicate: (a) type of work (b) address for application. Where no town is stated in the address it is the same as the locality given in the heading (c) deposit (d) last date of application (e) last date and time for submission of tender. Full details of contracts marked * are given in the advertisement section.*

BUILDING

ALDERSHOT B.C. (a) Erection of a crematorium, complete with equipment and fittings, at Aldershot Park, Aldershot. (b) Borough Engineer, Town Hall, Aldershot. (c) 2gn. (e) March 11.

* * *

AYLESBURY R.C. (a) (Contract No. 1), 12 bungalows and two houses at Weston Turville; (No. 2), 12 bungalows at Aston Clinton; (No. 3), four houses at Dinton; (No. 4) eight houses at Long Crendon. (b) Mr. Raymond C. White, of Messrs, Raymond White & Ridley, 4 Temple Square, Aylesbury. (c) 2gn (payable to Council). (d) February 21. (e) March 17.

* * *

BARKING CORPORATION. (a) Erection of covered market, estimated to cost approximately £20,000. (b) Town Clerk, Town Hall, Barking (on form obtainable from Borough Architect). (c) 5gn from selected applicants. (d) February 27.

* * *

BATTLE R.C. (a) Fixed price tenders for the erection of a group of 18 flatlets in two storeys at Mountjoy housing estate, Battle. (b) Mr. A. H. Neave, 38 Mount Street, Battle, Sussex. (c) 2gn. (e) March 4.

* * *

BEBINGTON B.C. Contract No. 9. (a) 124 houses and 38 garages on the Mill Park estate, Eastham. (b) Borough Engineer and Surveyor, Town Hall, Bebington, Wirral, Cheshire. (c) 3gn. (e) March 9.

* * *

BISHOP AUCKLAND U.C. (a) 60 houses and 14 aged persons' bungalows at Woodhouse Close estate. (b) Mr. J. Ford, Council's Surveyor, "The Elms", Silver Street, Market Place, Bishop Auckland. (c) 2gn when Bills of Quantities are completed. (d) February 21.

* * *

BLACKPOOL B.C. (a) Erection of Bisham Infants' School, off Crawford Avenue, Bisham, Blackpool, to be commenced shortly and completed in 48 weeks. (b) Borough Surveyor, Municipal Buildings, Blackpool (P.O. Box 17). (c) £2. (e) March 2.

* * *

BRENTWOOD U.C. (a) Fixed price tenders for the erection of 68 houses on Hutton estate. (b) Engineer and Surveyor, Council Offices, Brentwood. (c) 1gn. (e) March 2.

* * *

BRIGHTON B.C. (a) Fixed price tenders for the erection of new kitchen and dining rooms, Downs School, Brighton. (b) Borough Surveyor, 26/30 Kings Road, Brighton. (c) 2gn. (e) March 9.

* * *

BUCKS C.C. (a) Alterations to wood and metalwork room at William Penn Secondary School, Slough. (b) County Architect, Council Offices, Aylesbury. (e) March 2.

* * *

CANVEY ISLAND U.C. (a) 32 bungalows and semi-bungalows at Little Gypps Road site. (b) R. H. Stevens, Council Offices, Canvey Island. (e) February 27.

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CHESTERFIELD B.C. (a) 64 dwellings on Dunston Hill estate, Chesterfield. (b) Borough Engineer and Surveyor, Town Hall, Chesterfield. (c) 2gn. (e) March 4.

* * *

COOKHAM R.C. (a) (i) Four-storey block of 16 maisonnettes with approach road and (ii) block comprising shop and seven houses, and block of three houses, on Woodlands Park estate, White Waltham. (b) Engineer and Surveyor, Council Offices, Oaklands, 1 Bath Road, Maidenhead. (c) 2gn. (e) March 12.

* * *

COUNTY OF LINCOLN—PARTS OF KESTEVEN. (a) (i) Improvements to kitchen at Heighington Endowed C.E. School; (ii) alterations at Aubourn County School; (iii) first instalment of a new school at Sleaford Secondary School; (iv) first instalment of a new five-class school at Bassingham Primary School; and (v) adaptations at Sleaford Quarrington C.E. School. (b) County Architect, Council Offices, Sleaford, Lincs, by March 2. (e) March 19 (firm price basis).

* * *

COVENTRY CORPORATION. (a) Erection of a motor showroom and 18 flats in the central area adjoining Belgrade Theatre, Corporation Street. (b) City Architect, Bull Yard, Coventry. (c) 2gn, payable to Corporation. (d) February 23. (e) March 23.

* * *

CROYDON B.C. (a) Second stage redevelopment of Castle Hill housing estate, New Addington, comprising 172 dwellings in two- and four-storey blocks. (b) Borough Engineer, Town Hall, Croydon. (e) April 6.

* * *

CROYDON B.C. (a) Building two science laboratories at the Portland Secondary School, Sandown Road. (b) Chief Education Officer, Katherine Street, Croydon. (c) £1. (e) March 3.

* * *

CROYDON B.C. (a) Building a kitchen at Rockmount School, Rockmount Road. (b) Chief Education Officer, Katherine Street, Croydon. (c) £1. (e) March 3.

* * *

CROYDON B.C. (a) Building a four-storey kitchen, dining and science block at Selhurst Grammar Boys' School. (b) Chief Education Officer, Katherine Street, Croydon. (c) £1. (e) March 10.

* * *

CUCKFIELD URBAN COUNCIL. (a) 16 old people's dwellings at Pilgrim Court, Haywards Heath. (b) Surveyor to the Council, Council Offices, Oaklands, Haywards Heath, Sussex. (c) 2gn. (e) March 9.

* * *

DARTFORD B.C. (a) Fixed price tenders for the erection of a branch library at Ashen Drive, Dartford. (b) Town Clerk, Council Offices, Dartford. (c) 2gn. (e) March 9.

* * *

DEBEN R.C. (a) Fixed price tenders for the erection of one pair of houses and one pair of bungalows, together with incidental works at Alderton. (b) Engineer and Surveyor, Council Offices, Melton Hill, Woodbridge. (c) 2gn. (e) March 11.

* * *

DEBEN R.C. (a) Fixed price tenders for the erection of two pairs houses and four pairs of bungalows, together with incidental works in Rushmere. (b) Engineer and Surveyor, Council Offices, Melton Hill, Woodbridge. (c) 2gn. (e) March 11.

* * *

EIRE—KERRY C.C. (a) Reconstruction of the ferry bridge over the River Cashen and contingent works. (b) Mr. Ed. Ralph Ryan, 1 Montpelier Terrace, Galway. (c) 50gn. (e) February 28.

* * *

EIRE—MEATH C.C. (a) Erection of 20 houses, complete with water and sewerage services at Dunboyne. (b) Secretary's Office, County Hall, An Uaimh. (c) £10. (e) February 27.

* * *

EIRE—SHANNON AIRPORT. (a) Low-pressure, hot-water heating and hot- and cold-water installations in the new passenger and public building. (b) J. C. B. MacCarthy, Secretary, Dept. of Industry and Commerce, Kildare Street, Dublin. (c) £5. (e) February 23.

* * *

ENFIELD B.C. (a) 42 houses at "Chaselands", Lavender Hill, Enfield. (b) Borough Engineer, 7 Little Park Gardens, Enfield. (c) 2gn. (d) February 25. (e) March 26.

* * *

ENFIELD B.C. (a) Five shops, five maisonnettes at High Street, Ponders End, Enfield. (b) Borough Engineer, 7 Little Park Gardens, Enfield. (c) 2gn. (d) February 25. (e) March 26.

* * *

ENFIELD B.C. (a) 15 three-storey two-person flatlets on Hoe Lane North estate. (b) Borough Engineer, 7 Little Park Gardens, Enfield. (c) 2gn. (d) February 25. (e) March 26.

* * *

ESSEX C.C. (a) Erection of Romford Fire Station, estimated to cost £38,000, to be completed in nine months. (b) County Architect, County Hall, Chelmsford. (d) February 21.

* * *

ESSEX C.C. (a) Firm price tenders for the erection of cloakrooms, lavatories, etc., at Crays Hill Primary School, estimated cost £5,500. (b) County Architect, County Hall, Chelmsford. (d) February 21.

* * *

FAILSWORTH U.C. (a) 50 dwellings at Brierley Avenue housing scheme 29, Phase 4. (b) Engineer and Surveyor, Town Hall, Oldham Road, Failsworth, near Manchester. (c) 5gn. (e) March 14.

* * *

GLAMORGAN C.C. (a) Applications invited from contractors (not already on list) wishing to be placed on Council's list of approved contractors who will be invited to tender from time to time during period ending March 31, 1960, for County Building Projects as follows: (List A) for works estimated to cost more than £50,000; (List B) for works estimated to cost between £15,000 and £50,000; (List C) for works estimated to cost between £1,500 and £15,000; and (List D) for works estimated to cost less than £1,500. (b) County Architect, Glamorgan County Hall, Cardiff, stating whether applicant wishes to be entered on one or more of these lists. (d) February 28.

* * *

GOLBOURNE U.C. (a) Eight houses at Lowton. (b) Engineer and Surveyor, Council Offices, Lowton, near Warrington. (c) 3gn. (e) March 5.

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ISLE OF WIGHT STANDING JOINT COMMITTEE. (a) Fixed price tenders for the erection of a pair of police houses at Staplers Road, Newport, I.W. (b) County Architect, County Hall, Newport, I.W. (c) 2gn, payable to Isle of Wight County Council. (d) February 20. (e) March 16.

* * *

KERRIER R.C. (a) Extension to Council offices, "The Willows", Helston. (b) Messrs. J. H. Snellgrove & Partners, 47 Coinagehall Street, Helston. (c) 2gn (cheques payable to Council). (d) March 2. (e) March 21.

* * *

LANCASTER. (a) Erection of dining hall and kitchen for 450 meals at Bay View, Lancaster, next stage of Lancaster Royal Grammar School Development Programme, for the Governors. (b) Messrs. C. B. Pearson & Son, 18 Dalton Square, Lancaster, to be considered for tendering. (c) 2gn by cheque, payable to Messrs. C. B. Pearson & Son.

* * *

LEEDS C.C. (a) 260 dwellings at Moor Grange—Scheme No. 774. (b) City Architect, Priestley House, Quarry Hill, Leeds, 9. (c) £2 (cheques payable to "Leeds Corporation"). (e) March 16.

* * *

LEICESTER C.C. (a) Erection of Goldhill Secondary Modern Boys' School, Knighton Lane East, Leicester. (b) City Architect, 10 Loseby Lane, Leicester, by March 2. (c) £2 (cheques payable to City Treasurer, Leicester). (e) April 3.

* * *

LICHFIELD R.C. (a) 30 dwellings at Longwood, Fazeley; 32 at Oakdene, Burntwood; eight at The Square, Hammerwich; four at Whittington; six at Hopwas and 14 at Colton. (b) Clerk to the Council, Lichfield Rural Council, Rural Council House, Lichfield, stating in which site(s) interested. (c) 2gn. (d) February 20.

* * *

LINCOLN C.C. (a) Fixed price tenders for the erection of 68 one-bedroom flats on Ermine estate west. (b) City Architect, Stamp End, Lincoln. (c) 2gn (cheques payable to Corporation). (e) February 27.

* * *

LONDON—WALTHAMSTOW B.C. (a) Eight flats in a two-storey block on site of "The Hydro", Forest Road, Walthamstow, E.17. (b) Borough Architect, Town Hall, Walthamstow, E.17. (c) 2gn. (e) March 6.

* * *

LOUTH B.C. (a) 12 dwellings in Virginia Drive, Louth, together with ancillary works. (b) Messrs. Wm. Saunders & Partners, 57 Upgate, Louth, and 18 Queen's Parade, Grimsby. (c) 2gn. (e) March 2.

* * *

LUTON B.C. (a) Proposed three-classroom extensions at Challney Boys' School, on fixed price basis. (b) Borough Architect, Town Hall, Luton. (c) 2gn (cheques payable to Corporation). (e) March 13.

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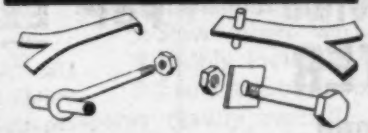
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MALVERN U.C. (a) Conversion of St. Nicholas' School, Cowleigh Road, North Malvern, into 17 flats. (b) Surveyor and Water Engineer, The Council House, Malvern. (c) 2gn. (e) February 27.

* * *

MANCHESTER C.C. (a) Erection of dressing pavilion at (i) Abbey Hey Play Fields and (ii) Debdale Park. (b) City Architect, P.O. Box 488, Town Hall, Manchester. (e) March 4.

* * *

NEW WINDSOR ROYAL B.C. (a) (Contract No. 1) 40 houses; (Contract No. 2) 36 houses; (Contract No. 3) 38 houses at Smiths Lane estate, Dedworth, Windsor. (b) Borough Engineer, Kipling Building, Alma Road, Windsor. (c) 2gn. (e) March 25.

* * *

NORTH COTSWOLD R.C. (a) (i) Four houses and two old people's bungalows at Guiting Power; (ii) 13 houses at Longborough; (iii) eight houses at Stow-on-the-Wold; (iv) three old people's bungalows at Broadwell; (v) eight houses at Ebrington; (vi) six houses at Willersey; and (vii) two old people's bungalows at Chipping Camden. (b) Council's Clerk, Council Offices, Moreton-in-Marsh, Glos. (d) February 21.

* * *

N. IRELAND—BALLYMENA R.D.C. (a) Erection of eight houses and the construction of site works at housing scheme No. 11—Garvaghy (No. 2) site (Portglenone). (b) Messrs. Ogilby & McCutcheon, 9 Upper Crescent, Belfast. (c) 5gn. (e) February 20.

* * *

N. IRELAND—BELFAST. (a) Sinking of ten boreholes and taking of samples of strata and recordings of strata at Victoria Barracks. (b) Housing Architects' Department, Townsend House, 97 Townsend Street. (c) £3 (cheque to be made payable to the Belfast Corporation). (e) February 24.

* * *

OLDHAM B.C. (a) Fixed price tenders for the erection of 27 houses on Fitton Hill estate. (b) Messrs. Cameron & Middleton, 21 Queen Street, Oldham. (c) 2gn (cheques, etc., crossed and payable to Borough Treasurer, Oldham Corporation). (e) March 9.

* * *

PENARTH U.C. (a) Ten single-bedroomed flats at Queen's Road, Penarth. (b) Engineer and Surveyor, "West House", Stanwell Road, Penarth. (c) 2gn. (e) February 28.

* * *

PUDSEY B.C. (a) Separate trades in connection with the erection of eight flats and five garages at Farfield estate, Farsley. (b) Borough Surveyor, Town Hall, Pudsey. (c) 2gn each trade. (e) February 28.

* * *

RUNCORN U.C. (Contract No. 38). (a) Fixed price tenders for the construction of a further 208 dwellings and 32 garages on Grange Neighbourhood Unit. (b) Council's Surveyor, Town Hall, Runcorn. (c) 3gn. (e) March 2.

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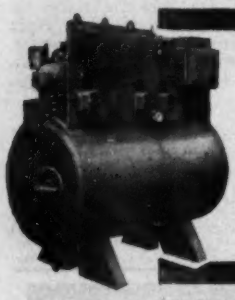

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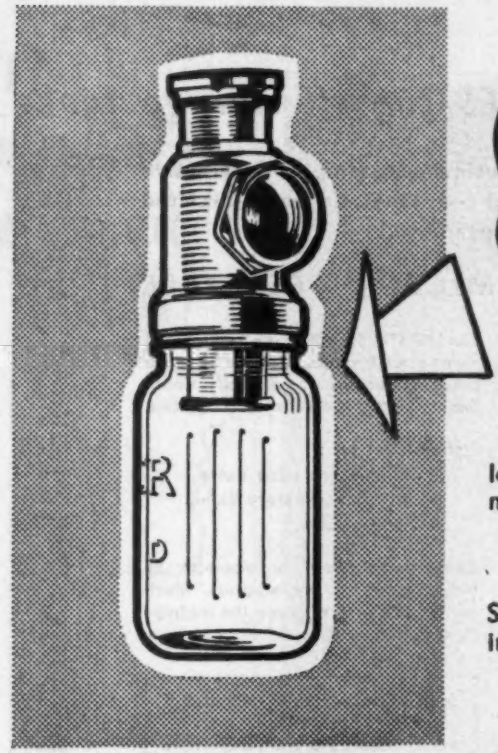

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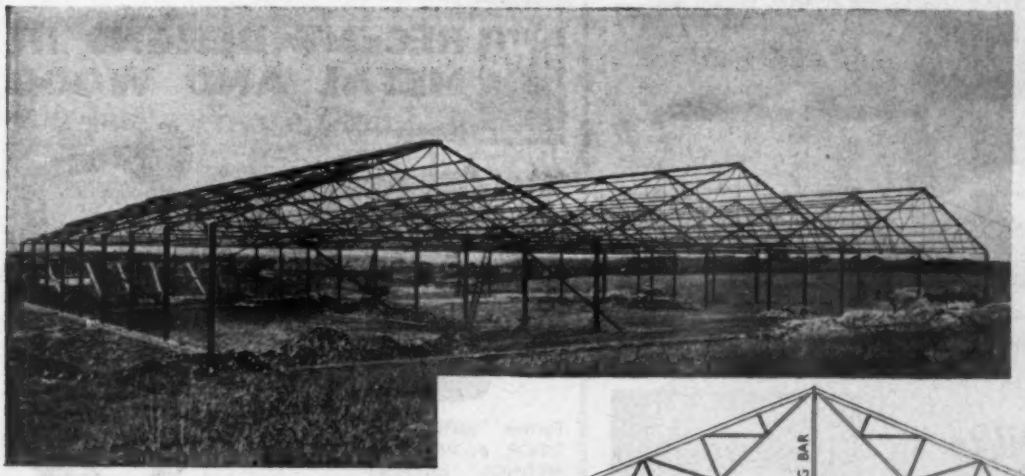

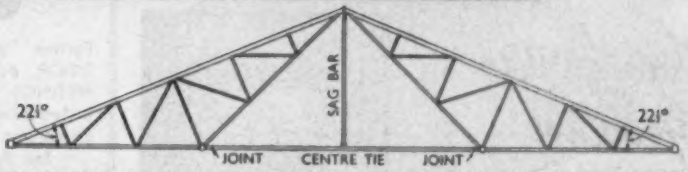

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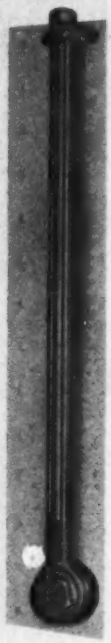

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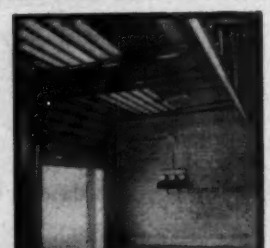

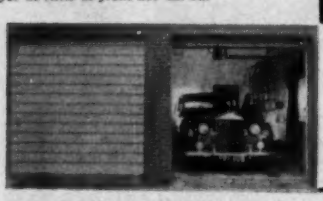

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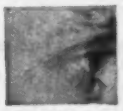

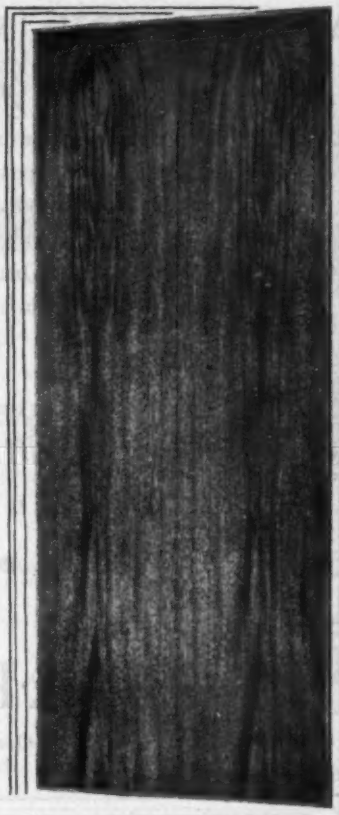

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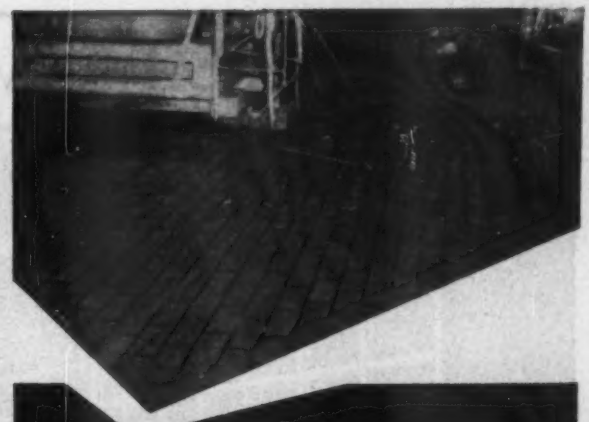

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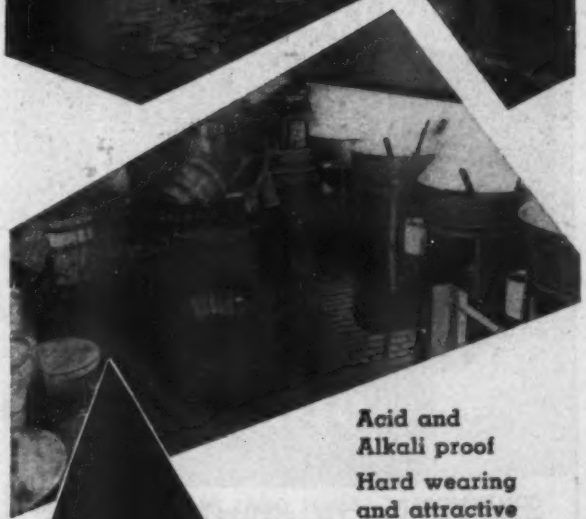

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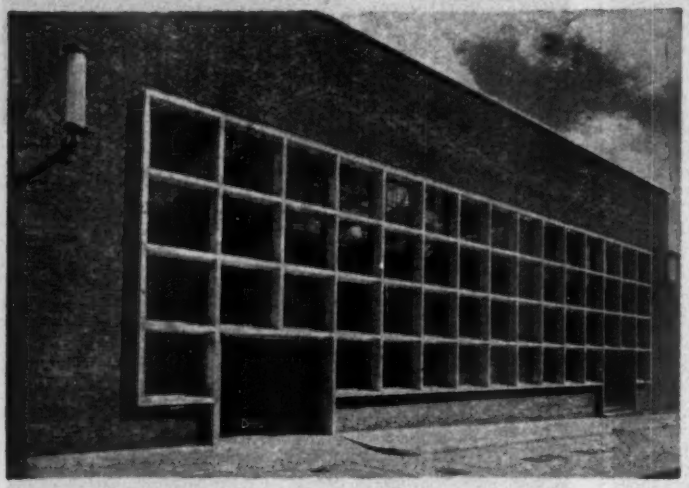

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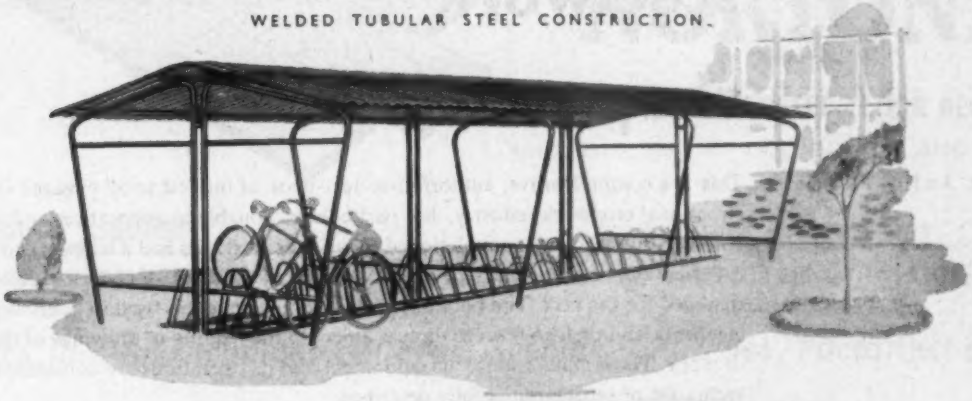

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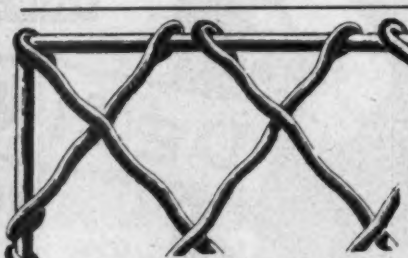

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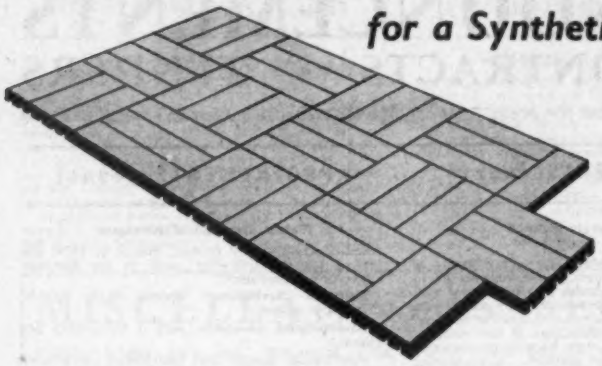

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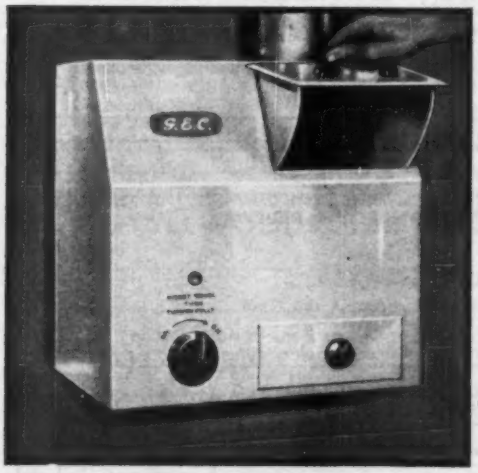

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Application forms, to be returned not later than March 7, 1959, will be supplied by the Chief Education Officer, Guildhall, Kingston upon Hull. [4848

London Brick Company Limited

APPLICATIONS are invited for the position of Assistant Architect in the Estates Department, Stewartby, Bedford.

It will be an advantage if the applicant is an Associate of the Royal Institution of British Architects.

Housing accommodation can be made available if required.

Applications, giving details of training, age, qualifications, experience and stating salary required, should be submitted as soon as possible to the Personnel Manager, Stewartby, Bedford. [4854

County Borough of Derby
Borough Architect's Department

(a) **Senior Assistant Architects,** Special Grade (£750—£1,030 per annum). Qualifications: A.R.I.B.A.

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Application forms obtainable from and to be returned to the Borough Architect, The Council House, Corporation Street, Derby, not later than Monday, March 9, 1959.

G. H. EMLYN JONES,
Town Clerk.

February 13, 1959. [4865

APPOINTMENTS (cont)

London County Council
Architect's Department

APPLICATIONS are invited for appointment as Principal Housing Architect, to be responsible to the Architect for the Housing Division (total staff about 340), which is responsible for the design and erection of most of the Council's housing. Experience of public architecture is not essential but the person selected must be able to organize, lead and inspire a large division. Commencing salary according to qualifications and experience within scale £2,450 x £100—£2,650 a year. The position is permanent and pensionable. Further particulars and application form from Clerk of the Council (CL/G), County Hall, London, S.E.1. Returnable by March 23, 1959. (332) [4864

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Assistant Architect. Salary range: £943/£985 p.a. Good draughtsman with design ability.

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Executive Architect: Victor Hamnett, B.Sc., A.R.I.B.A., Dip.T.P., A.R.I.C.S., A.M.T.P.I.

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Housing accommodation available for successful candidates.

Applications giving full details and stating post applied for to be submitted with names of two referees to General Manager, Terlings, Harlow, Essex, within 10 days. [4858

APPOINTMENTS (cont)

County Borough of Blackpool

APPLICATIONS (by Friday, March 6, 1959) are invited for the following posts in the Borough Surveyor's Department:

Assistant Architects. Special scale (£750/£1,030 per annum).

Architectural Assistants. APT I (£575/£725 per annum).

Application forms and particulars obtainable from the Borough Surveyor (Arthur Hamilton, A.R.I.B.A.), P.O. Box 17, Municipal Buildings, Blackpool.

ERNEST C. LEE,
Town Clerk.
[4861

Leeds Regional Hospital Board

APPLICATIONS are invited for the following appointments:

(a) **Senior Assistant Architects.** Salary scale £1,010/£1,195 per annum.

(b) **Assistant Architects.** Salary scale £700/£1,015 per annum. Commencing salary dependent upon relevant practical experience, but the additional increments granted will not be more than the number of years by which the officer's age exceeds 23.

Applicants for the Senior and Assistant appointments must be Associate Members of the R.I.B.A.

(c) **Architectural Assistants.** Salary scale £525/£720 per annum.

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Applications, giving age, experience and the names of two referees, to the Secretary, Park Parade, Harrogate, by not later than March 7, 1959. [4859

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Application forms (send s.a.e.), returnable by March 6, from the Clerk of the County Council, The Castle, Winchester. [4866

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Commencing salary will be fixed at any point within the grade in accordance with experience.

Application forms and particulars obtainable from Borough Surveyor (Arthur Hamilton, B.Sc.), P.O. Box 17, Municipal Buildings, Blackpool.

ERNEST C. LEE,
Town Clerk.
[4862

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Beeston and Stapleford Urban District Council
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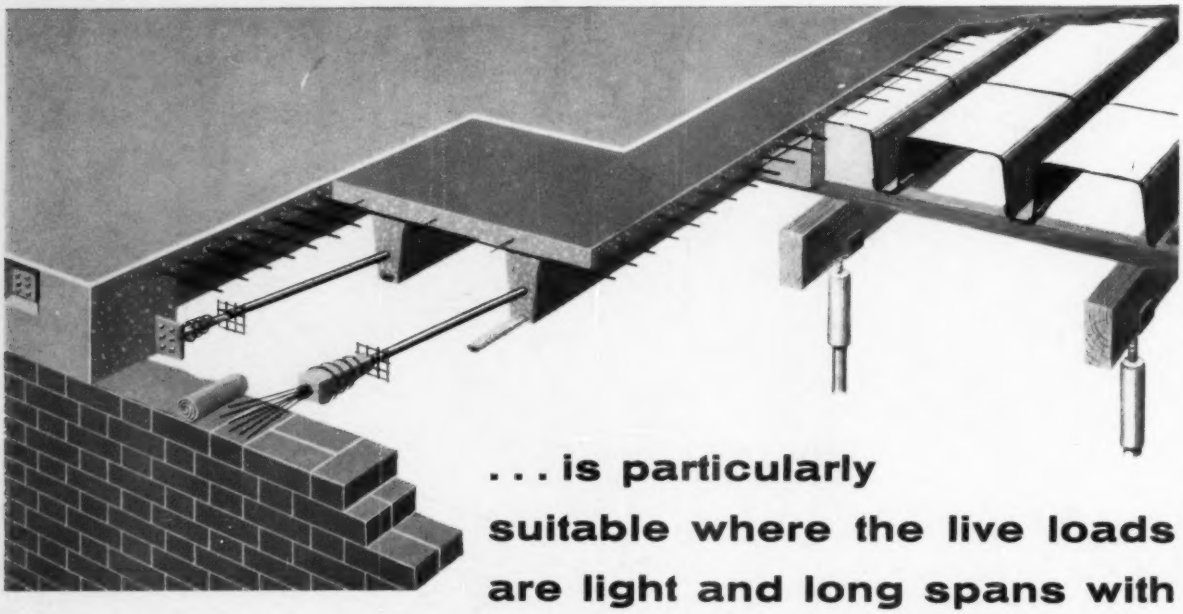

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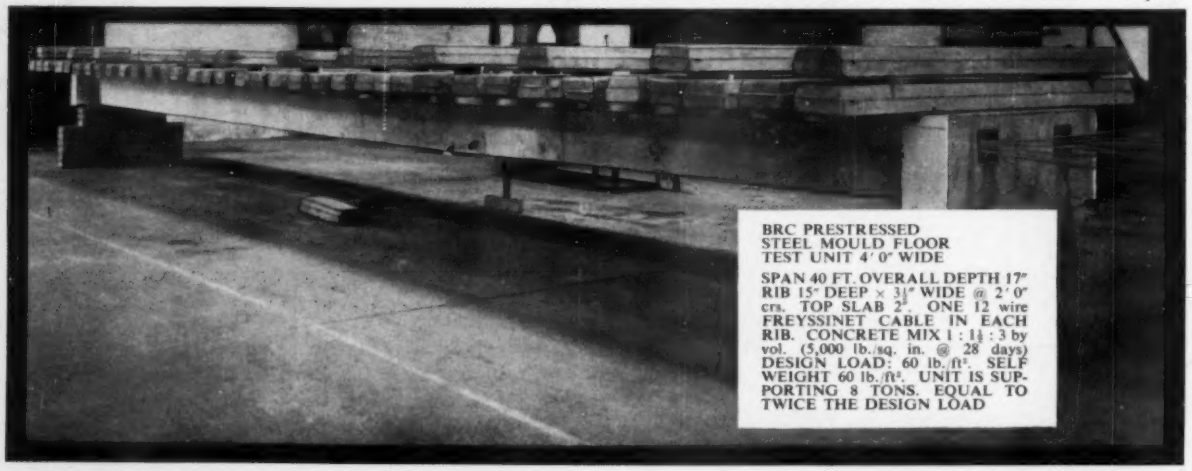
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